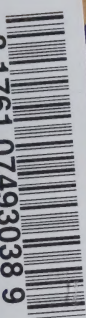


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THE BUSINESS MAN'S GEOGRAPHY

E. G. R. TAYLOR

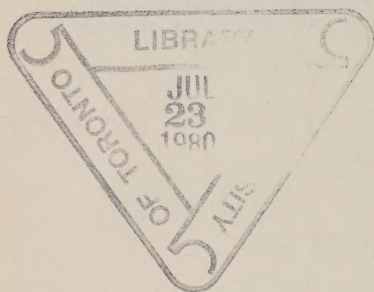


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**THE
BUSINESS MAN'S
GEOGRAPHY**



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PREFACE

THE BUSINESS MAN'S GEOGRAPHY gives a succinct account of the position as regards industry and commerce in every part of the globe, together with such geographical facts as have a direct bearing upon the subject. That position is not, of course, a static one, and hence the author has throughout attempted to show how matters are tending, and to emphasize future potentialities as well as actual conditions.

Every care has been taken to ensure that the information given and the conclusions drawn are thoroughly reliable, and numerous authorities have been consulted, including the following: the Official Year Books of individual countries; Foreign Office and Consular Reports; Reports of H.M. Commercial Secretaries and Counsellors, Imperial Trade Commissioners and Correspondents; Reports and Special Articles in the Board of Trade Journal; the Economic Review of the Foreign Press; the Bulletin of the Imperial Institute; the Bulletin of the Federation of British Industries; the Statistical Bulletin of the League of Nations; the reports of Special Correspondents to the Imperial and Foreign Trade Supplement of *The Times* newspaper. In addition the libraries of the Royal Geographical Society, the Royal Statistical Society, the Imperial Institute, and the Federation of British Industries have been kindly placed at the author's disposal. Doubtful points were referred to the Overseas Department of the Board of Trade, where unpublished dispatches and memoranda were consulted.

Statistics are constantly quoted, the figures being carefully selected in order to show the normal capacity for production of each particular region, and the capacity for absorbing goods of each particular market. It cannot, however, be too strongly emphasized that even official statistics must be used with caution and need interpretation, since many of them are estimates merely, while with regard to others the method of compilation may lead to error. For example, the shipper may declare exports by weight when the custom-house officers value them by means of an official price list which is often not up to date. Again, as regards the origin and destination of commodities, in many cases goods are credited to an entrepôt where they merely change bottoms, whereas if a different method of compiling records is adopted the same goods may be credited to their true place of origin or destination. This is one reason why the Board of Trade figures of the trade with a particular country do not always tally with the figures issued by that country itself.

Bearing these facts in mind, it will be seen that statistics must be taken in round figures only, and that their value lies in indicating the *relative* importance of particular fields of production or markets, while they also reveal the tendencies, and the changing direction and flow of trade in such a way as to allow of intelligent forecasting of to-morrow's commercial conditions.

The statistics of trade for the last few years need particularly careful study, since violent fluctuations both in price level and in the rate of exchange

Preface.

must be taken into account. Hence tables of exchange rates and wholesale prices will be found in an Appendix. As an example of the effect of price changes, an analysis of the trade of the United States during the first six months of 1921 may be quoted. The drop in the value of the exports as compared with the previous year was 50 per cent., but this was due to a 30 per cent. drop in prices, together with a 20 per cent. only drop in volume. Again, when the exports of 1921 are compared with those of 1913, it should be recalled that in the former year wholesale prices in America (based on 20 staples articles) were still one and a half times as high as before the War.

Since it has been the author's aim throughout to make the book of practical value, there has been no attempt to secure an appearance of uniformity by confining statistics to one particular year or group of years. That year or group of years has been selected which best shows the actual state of affairs. In particular, the year 1921 has so obviously been quite abnormal that the figures for that year are only occasionally quoted.

The spelling of place-names is that commonly current in well-informed business circles, which often differs from the form recognized as academically correct. Various spellings are employed when each is in general use.

The author is indebted to Mr. Wallace E. Whitehouse, M.Sc., of the University of Wales, for a careful revision of the proofs, and for many valuable suggestions. For any errors which remain the author alone is responsible.

THE MAPS

The black and white maps inserted in the text show the most important physical controls upon production (i.e. uplands or mountains, and defect of water supply), by cross-hatching, and the various commercial products by symbols, which are explained on the "characteristic sheet" facing page 1.

Each symbol is placed as accurately as possible in the centre of the district producing the commodity in question. Modifications of the symbols show the relative importance and potential importance of the various commodities. Only such towns are inserted as demand the attention of traders and agents, and these are graded according to their importance by means of different shaped stamps. These stamps allow of comparison only between towns on the same map; for example, Buenos Aires has the same stamp as Kinshara (Congo), since although differing greatly in size, each of these towns is of first importance to the country in which it stands, and should be the first towards which trade enquiries are directed. In countries where communications are poorly developed, even short lengths of railway are shown, whereas in countries with a fully developed system (e.g. France) only main routes are indicated. As in the text, the criterion of insertion of any matter on the maps has been its practical commercial importance.

Reference to the coloured maps at the beginning of the volume will show the world relations of the countries mapped separately in the text.

September, 1922.

E. G. R. TAYLOR.

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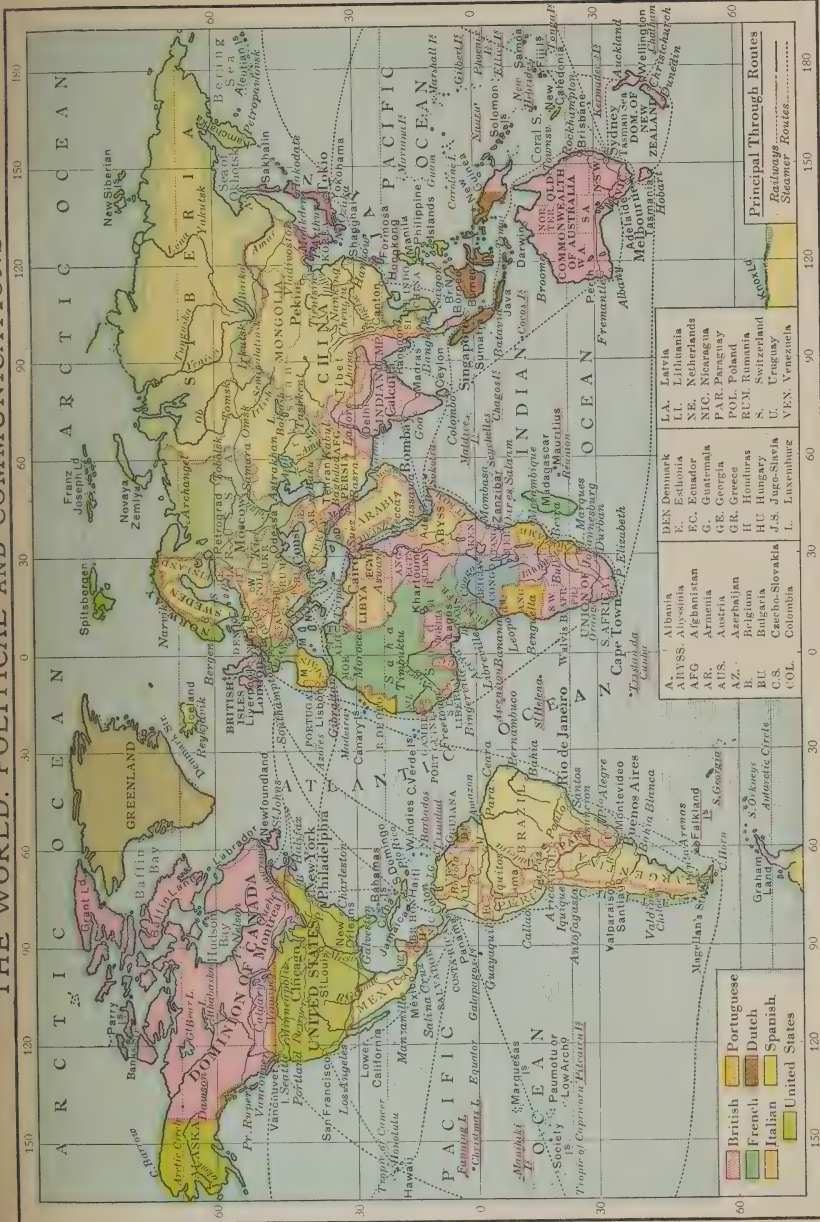
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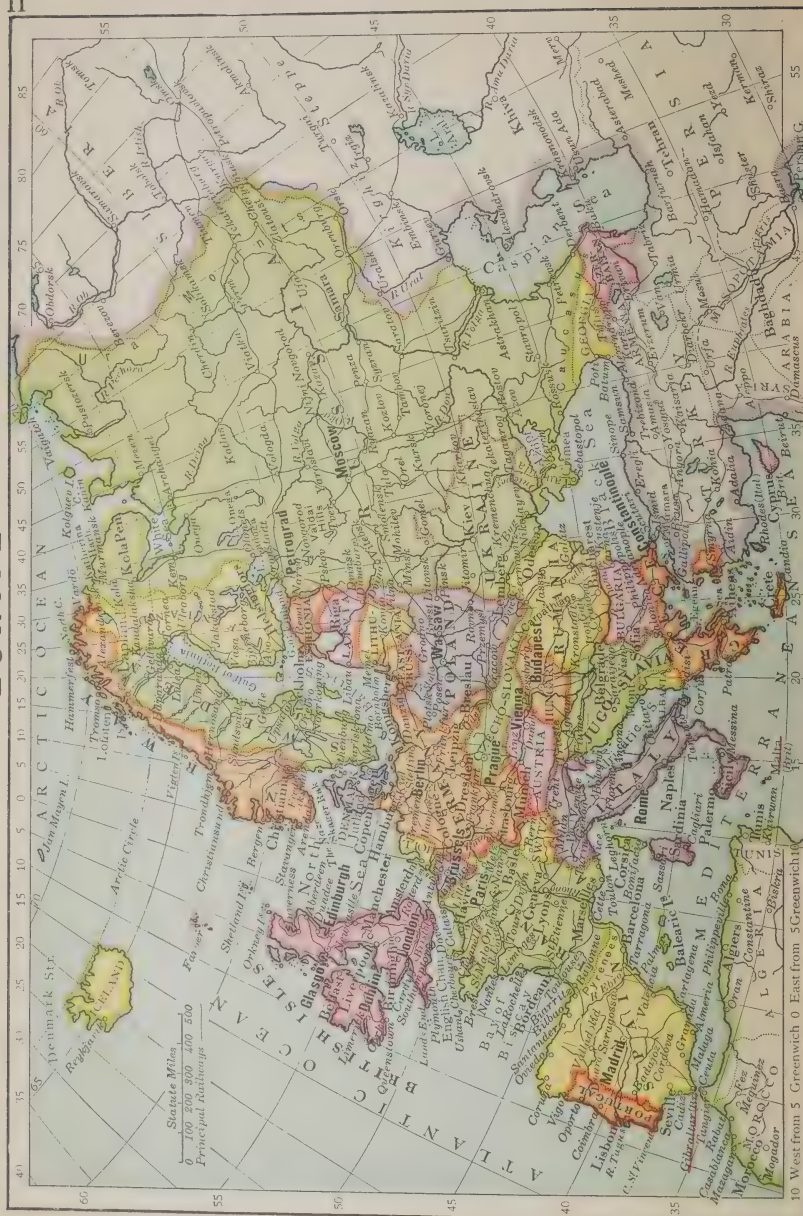
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Principal Through Routes
Railways Steamship Routes

EUROPE



ENGLAND AND WALES

III



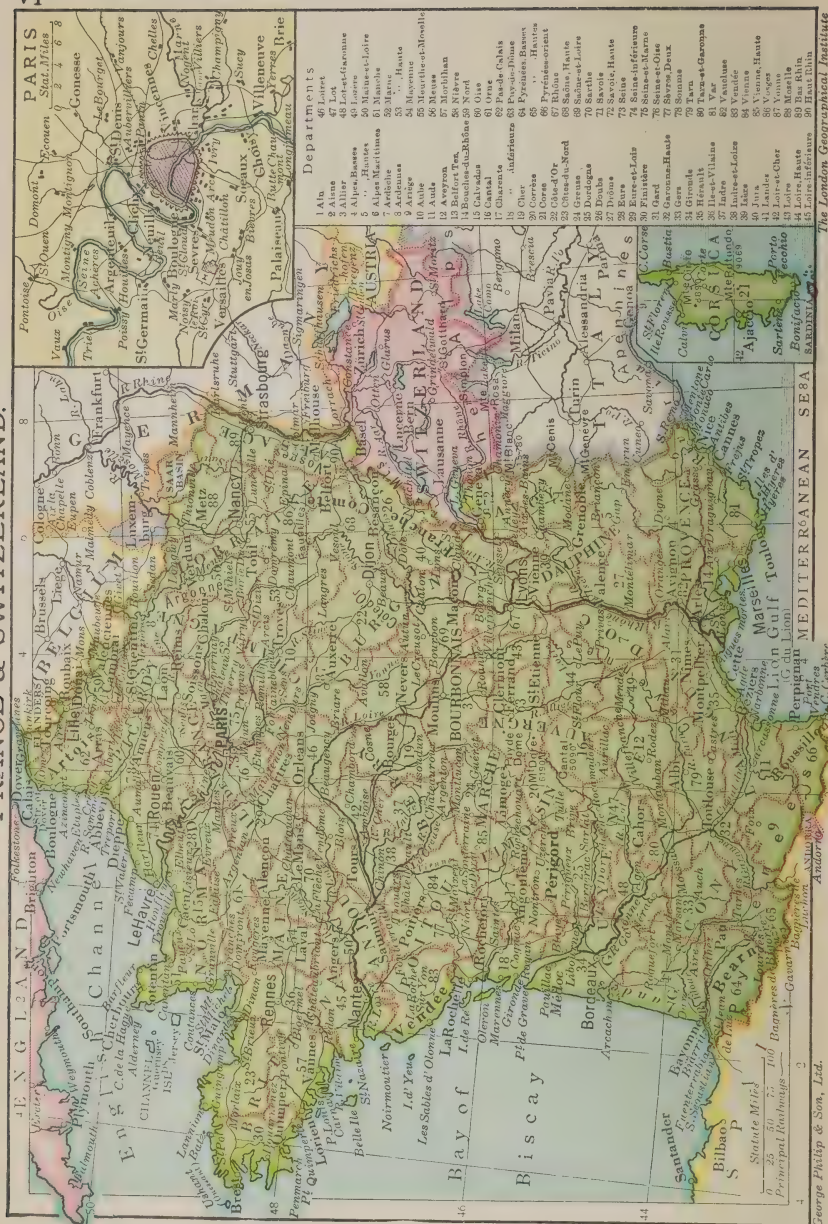


IRELAND

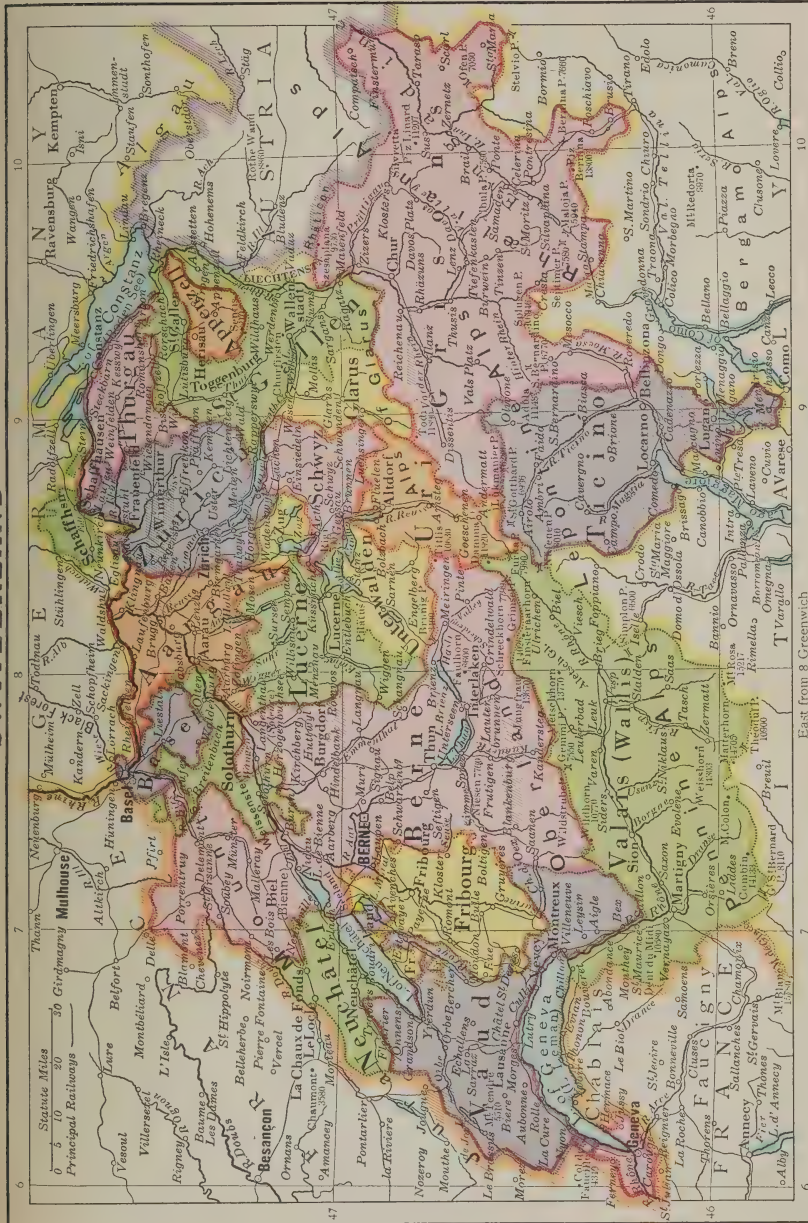
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SWITZERLAND



East from 8 Greenwich

VIII

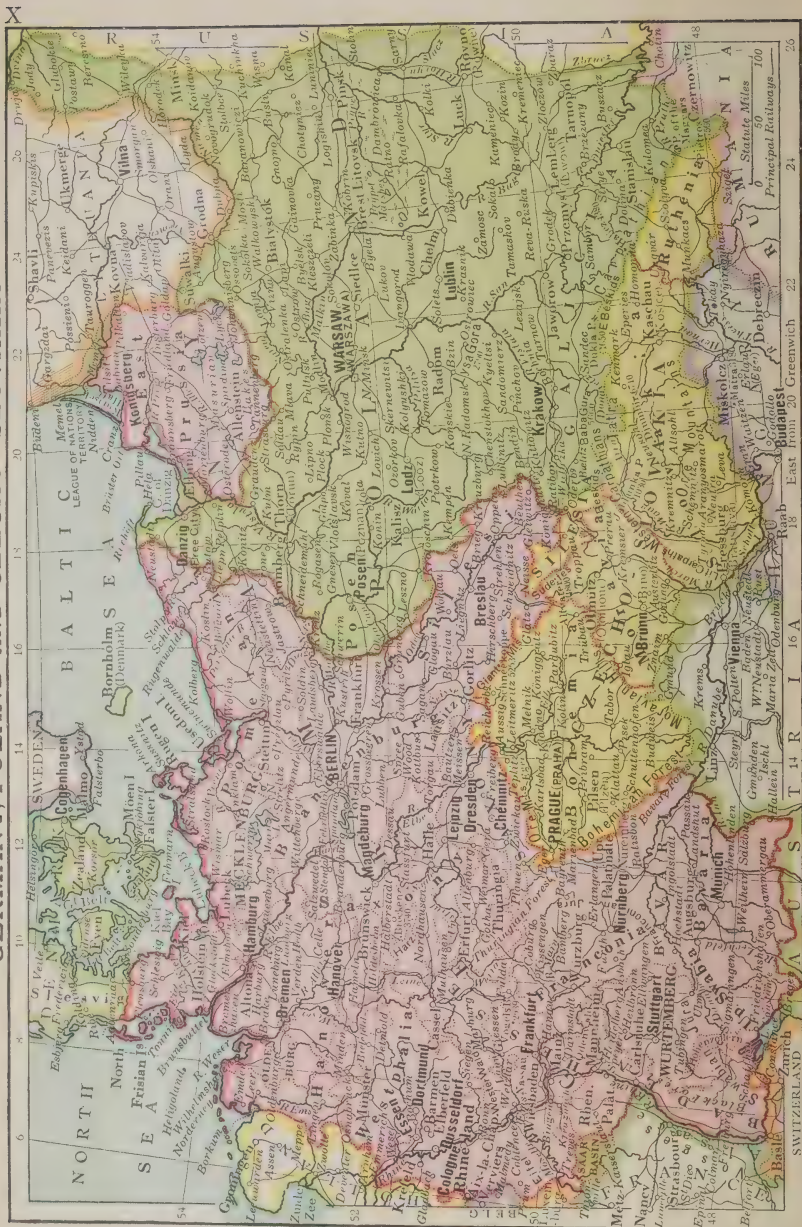


ITALY

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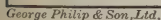


AUSTRIA AND HUNGARY

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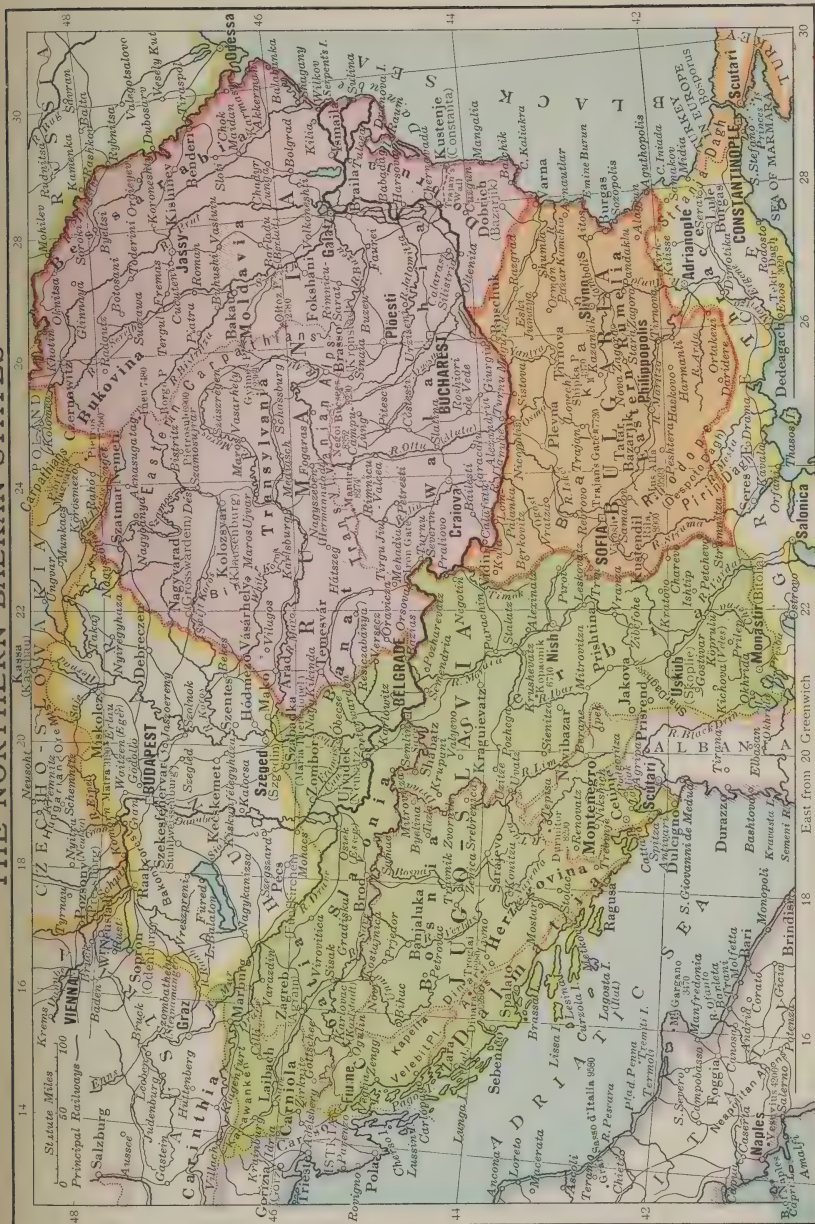


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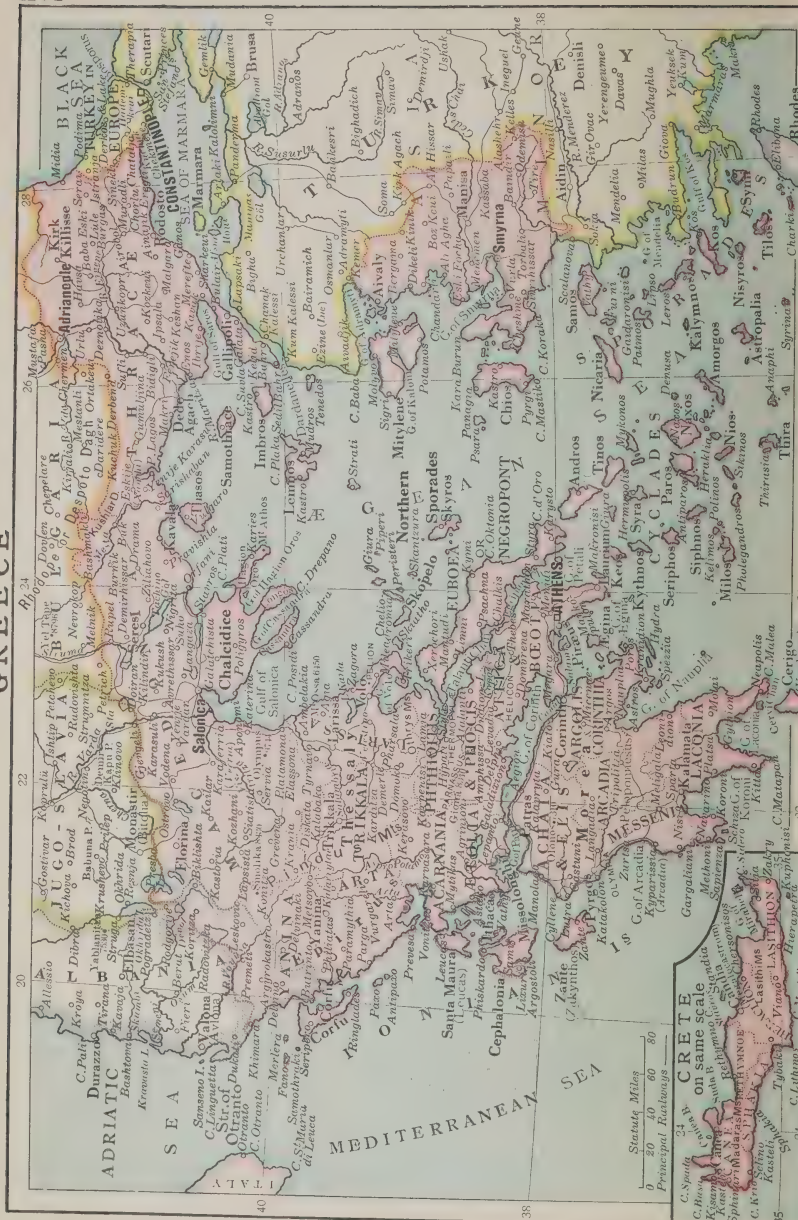




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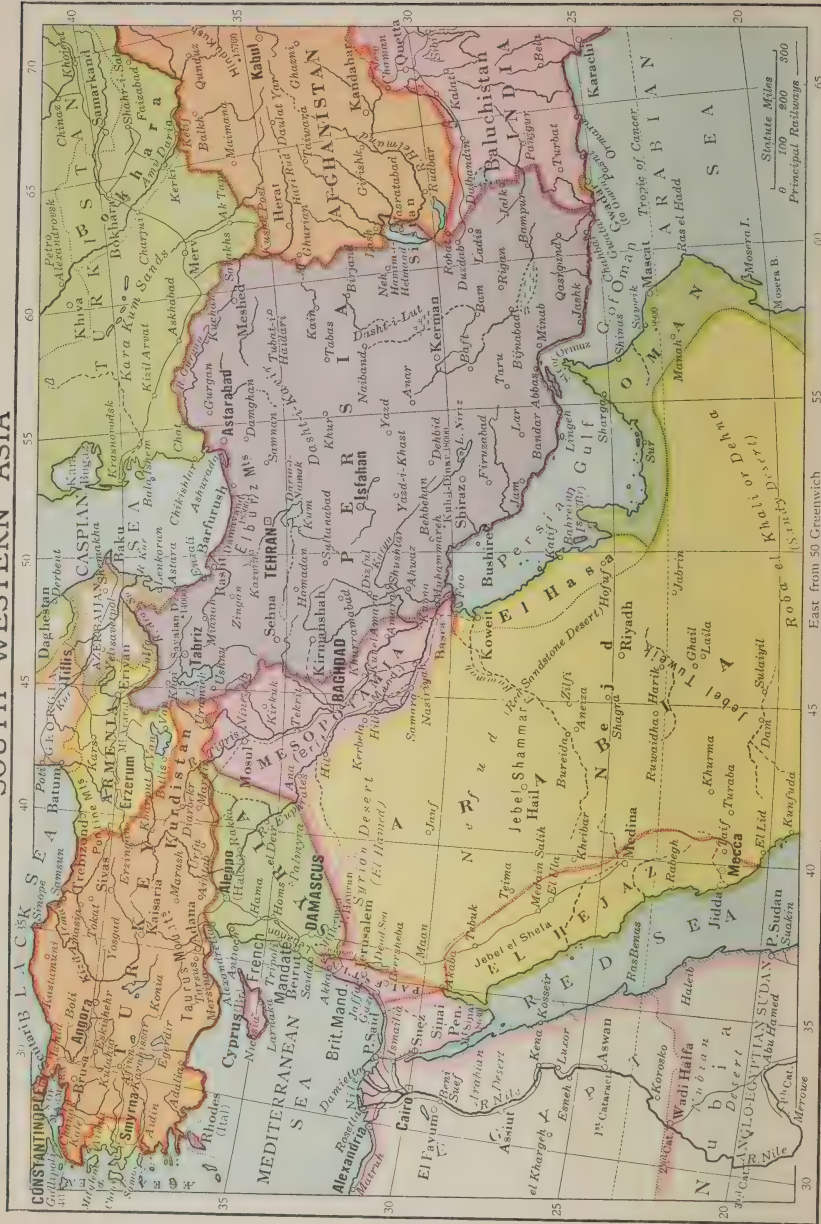
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SOUTH - WESTERN ASIA





THE EAST INDIES & FURTHER INDIA



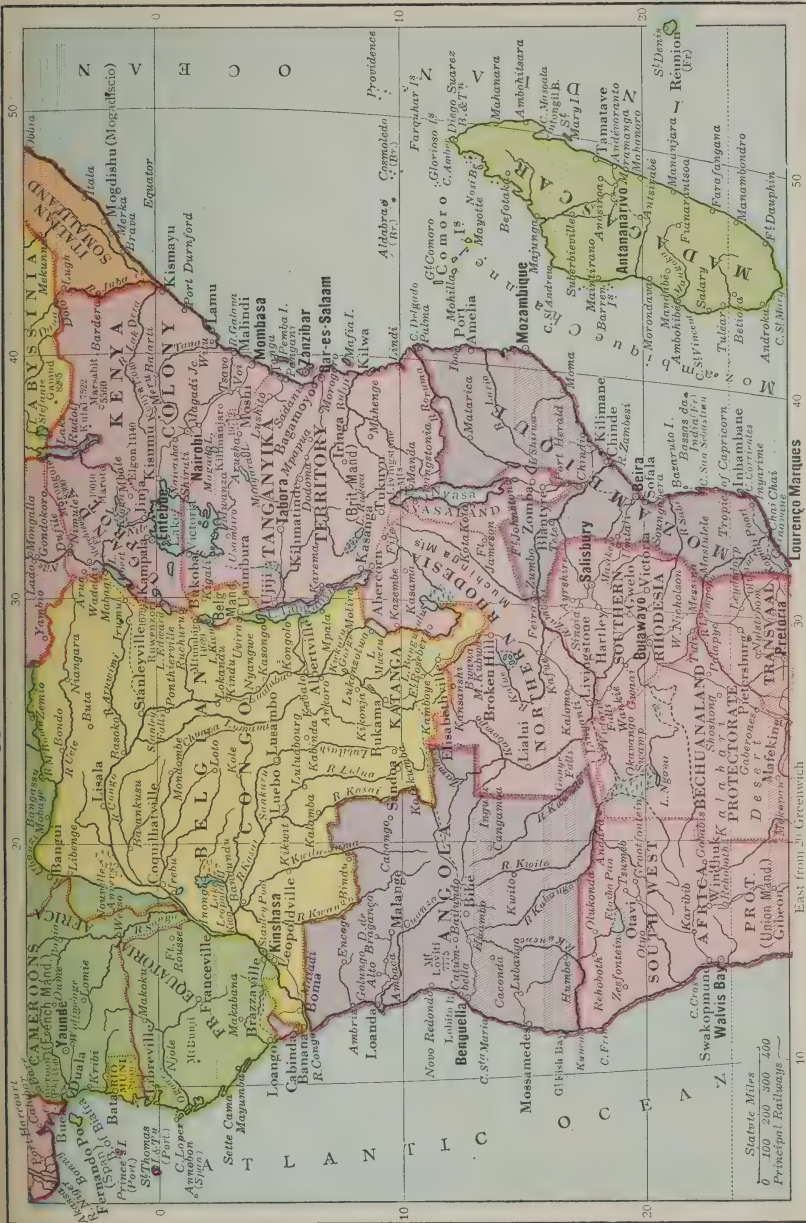
CHINA AND JAPAN





XXIII

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SOUTH AFRICA

XXIV



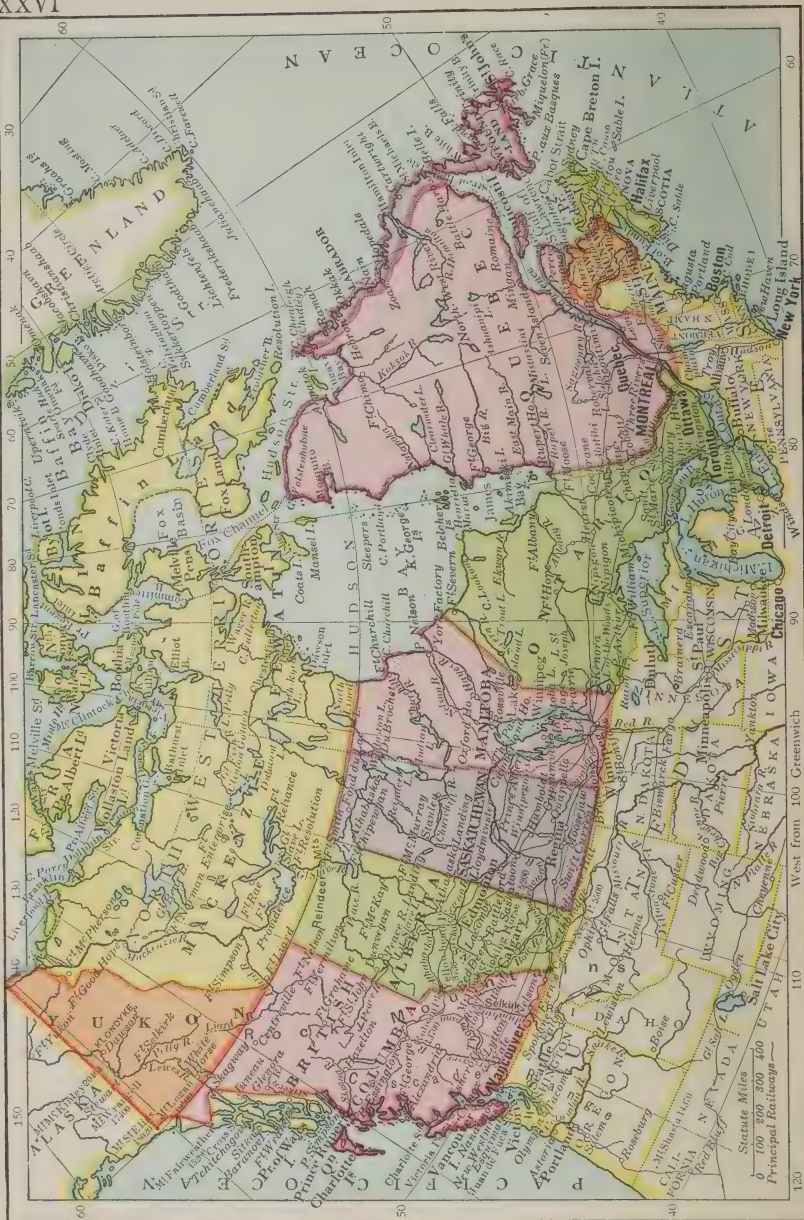
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North Pole



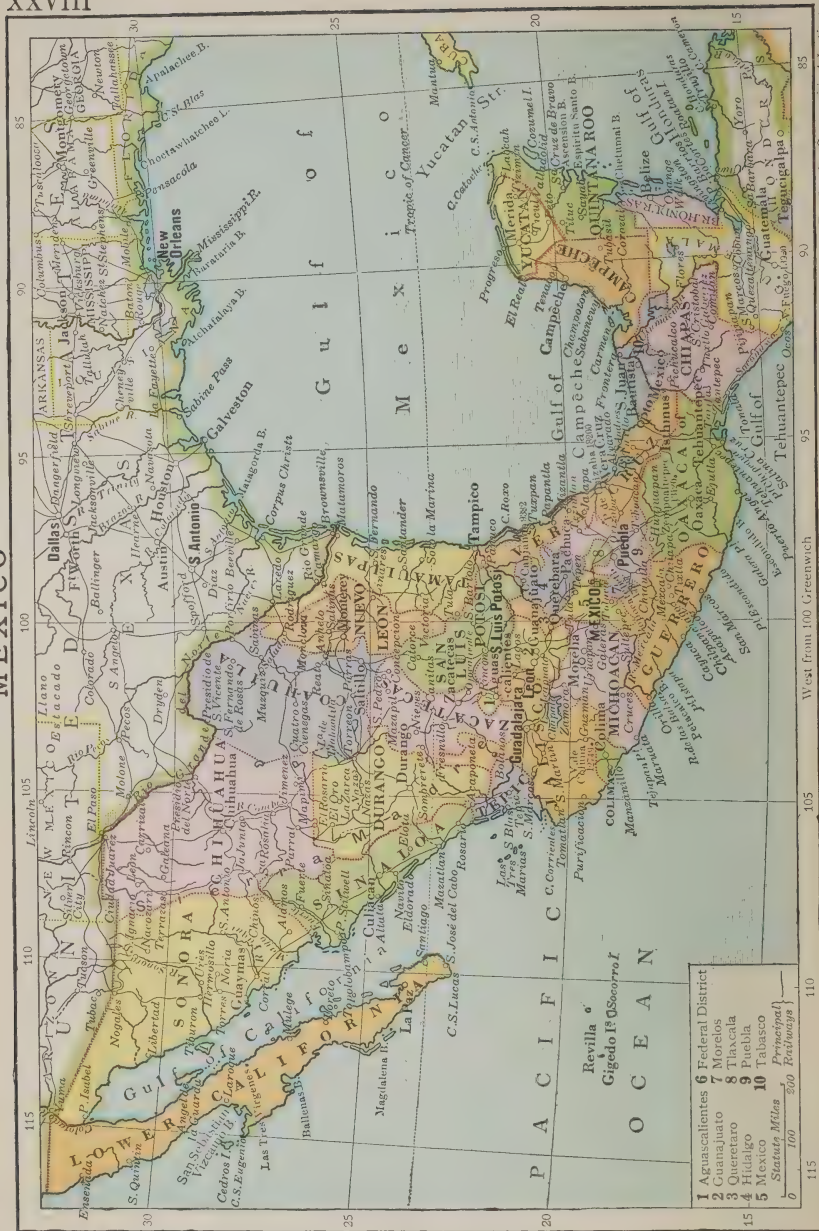
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XXVI





MEXICO



CENTRAL AMERICA AND WEST INDIES



XXIX

The London Geographical Institute

George Philip & Son, Ltd.



THE COMMONWEALTH OF AUSTRALIA





CONVENTIONS

To*	Product of primary and growing importance in Commerce
To	" " importance in Commerce
To*	" secondary and growing importance in Commerce
To	" " importance in Commerce
[To]*	Product undeveloped, slightly developed, or developed for local use only, but likely to become important
[To]	Product undeveloped, slightly developed, or developed for local use only
□	Town of first importance in the region mapped
○	" secondary " " "
●	" minor " " "
(f5)	Total approximate per capita Foreign Trade per annum

6 x Brit. Is.
741,000
sq. m.

Total area of country mapped

Europeans
Africans

6 Mill.

Numbers and character of population of country mapped

--- International Boundaries

++++ Railways

==== Canals

----- Caravan Routes

~~~~~ Rivers with anchor at head of Steamer Navigation ~~~~~ Other Rivers

Highlands affecting development of country

Marked deficiency of Rainfall

Summit-lines of important Hill or Mountain Ridges

Water surface

10° N. Latitude

[2 hrs. F.] Standard Time as adopted in country mapped:  
Fast (F.) or Slow (S.) of Greenwich

10° E Longitude

F. Mean Solar Time. Fast (F.) or Slow (S.) of Greenwich  
on Meridian shown (in cases where no Standard Time is given)

# SYMBOLS

|                 |                            |                     |                |
|-----------------|----------------------------|---------------------|----------------|
| Af              | Alfalfa                    | Nu                  | Nutmegs        |
| Al              | Aluminium                  | Ol                  | Olives         |
| An              | Antimony                   | Op                  | Opium          |
| Ap              | Apples                     | Or                  | Oranges        |
| As              | Asbestos                   | Os                  | Oil Seeds      |
| Ba              | Bananas                    | Pa                  | Potash         |
| By              | Barley                     | Ph                  | Phosphates     |
| Be              | Beans                      | Pi                  | Pineapples     |
| Ca              | Cacao                      | Pl                  | Palm Oil       |
| Cb              | Cobalt                     |                     | and Kernels    |
| Cc              | Coca                       | Po                  | Potatoes       |
| Cf              | Coffee                     | Pp                  | Pepper         |
| Ch              | Chrome Ore                 | Pt                  | Platinum       |
| Ck              | Cork                       | Qu                  | Quebracho      |
| Cn              | Chestnuts                  | Ra                  | Raisins        |
| Co              | Copper                     | Ri                  | Rice           |
| Cp              | Copra                      | Ru                  | Plantation     |
| Cr              | Currants                   |                     | Rubber         |
| Ct              | Cotton                     | Ru <sup>w</sup>     | Wild Rubber    |
| Cv              | Cloves                     | Ry                  | Rye            |
| Da              | Dates                      | Sa                  | Sago           |
| Di              | Diamonds                   | Si                  | Silver         |
| Em              | Emeralds                   | Sk                  | Silk           |
| Es              | Esparto Grass              | Sl                  | Salt           |
| Ey              | Emery                      | Sp                  | Spices         |
| Fi              | Figs                       | Sr                  | Sulphur        |
| Fl              | Flax                       | Su                  | Sugar          |
| Fl <sup>s</sup> | Flax for Seed              | Su <sup>B</sup>     | Sugar (Beet)   |
| Fr              | Fruit                      | Sy                  | Soya Beans     |
| Fr <sup>p</sup> | Plums                      | Ta                  | Tapioca        |
| Ft              | Feathers                   | Te                  | Tea            |
| Fu              | Furs                       | Ti                  | Timber         |
| Gn              | Ground Nuts                | Ti <sup>M</sup>     | " (Mahogany)   |
| Go              | Gold                       | Ti <sup>P</sup>     | " (Pulp Wood)  |
| Gr              | Graphite                   | Ti <sup>T</sup>     | " (Teak)       |
| Gu              | Gums & Resin               | Tm                  | Tomatoes       |
| Ho              | Hops                       | Tn                  | Tin            |
| Hp              | Hemp                       | To                  | Tobacco        |
| Hp <sup>M</sup> | Hemp (Manila)              | Tu                  | Tungsten       |
| Hp <sup>S</sup> | Hemp (Sisal)               | Va                  | Vanilla        |
| Ir              | Iron                       | Vd                  | Vanadium       |
| Ka              | Kaolin                     | Vi                  | Vine           |
|                 | (China Clay)               | Wa                  | Wattle Bark    |
| Ko              | Kola Nuts                  | Wh                  | Wheat          |
| Ld              | Lead                       | Wi                  | Wine           |
| Le              | Lemons                     | Zn                  | Zinc           |
| Lg              | Lignite                    |                     |                |
| Li              | Limes                      |                     |                |
| Ma              | Maize                      |                     |                |
| Mc              | Manioc                     | CATTLE <sup>M</sup> | (for Meat)     |
| Me              | Mercury                    | CATTLE <sup>H</sup> | (for Hides)    |
| Mg              | Magnesite                  | CATTLE <sup>D</sup> |                |
| Mn              | Manganese                  |                     | (for Dairying) |
| Mt              | Yerba Maté                 | SHEEP <sup>w</sup>  | (for Wool)     |
| Na              | Natron (Carbonate of Soda) | SHEEP <sup>H</sup>  | (for Skins)    |
| Ni              | Nitrates                   | SHEEP <sup>M</sup>  | (for Meat)     |
| Nk              | Nickel                     | PIGS <sup>L</sup>   | (for Lard)     |

# ABYSSINIA

**Area and Population.**—The independent Empire of Abyssinia includes three kingdoms and various territories and dependencies, and is ruled over by an Empress, with the assistance of a Regent. Britain, France and Italy, with territories on the Abyssinian border, are jointly agreed not to interfere in the internal affairs of the Empire, while they safeguard their



FIG. 1.—ABYSSINIA, ERITREA AND FRENCH SOMALILAND.

respective economic interests. The area of the country is about 350,000 square miles (nearly three times the area of the British Isles), with an estimated population of 8 millions. The total trade is between £4 millions and £5 millions, the exports being more than double the imports in 1918. The per capita trade, little more than 10s., is low, since the resources of the country are quite undeveloped. The ruling classes are soldiers by profession,



## **Abyssinia.**

and do not engage in trade, which is in the hands of Greeks, Armenians, Indians and Arabs. The Abyssinians are Christians, the Abyssinian Church being closely connected with the Coptic Church of Egypt. There is no popular education. The Abyssinians are racially akin to the Egyptians, and are not of negro stock, although outlying territories have a negro population.

The chief centres of population are Addis Abbaba, the present capital, and Harar, each with about 50,000 inhabitants. Harar has the largest European population (about 300), and there are a considerable number also at Dire Dawa, on the railway.

**Position and General Conditions.**—Abyssinia lies between latitudes 3° N. and 15° N., i.e. in a region of powerful insolation, but as the country is a lofty plateau averaging 4,000 to 6,000 ft. above sea-level, and in some districts 6,000 to 12,000 ft., the temperature is modified, and the air is cool, especially at night. The difference between summer and winter temperatures is not great. The summer is the rainy season, as in the neighbouring Sudan, but the great elevation of Abyssinia induces a much heavier downpour than occurs in the Nile valley. This rainfall is carried off by the Sobat, Blue Nile and Atbara, all of which are rapidly converted into swollen muddy torrents when the rains commence, and, flowing to join the Nile, are the cause of the floods in Egypt. Since the rain-bearing winds are from the south-west, the leeward slopes of the plateau, looking towards the Red Sea, are dry, and are clothed with thorn-bush and scrub. The greater part of Abyssinia is, however, well wooded, and has abundance of rich pastures, with the result that **cattle** rearing is the staple occupation of the peasantry, while donkeys and mules are bred as pack animals. *Sheep* and *goats* are also numerous. The climate and soil are excellent for agriculture, which is, however, in a backward state. Millet, cotton, sugar and tobacco are grown at lower elevations, wheat, barley and vines at a somewhat higher level, but the only cultivation of importance is that of **coffee** in the south-east round Harar. Of much greater importance is the *wild coffee*, which grows in unlimited quantities on the south and south-west of the plateau, and forms, with *hides*, the staple export. Some hundreds of tons of *beeswax* are also collected annually and exported.

In 1911 deposits of **potash**, said to be equal to those of Stassfurt, were discovered in the arid region on the Eritrean frontier, and work was commenced by the Italians on a port at Fatimari and a railway to the mineral beds, but the enterprise has had little success.

**Trade Relations.**—The greater part of the foreign trade goes by the recently finished railway, which runs from the capital across the valley of the Hawash River to Dire Dawa (25 miles from Harar), and thence through French Somaliland to the port of Djibouti. British and Indian shirtings and cotton goods, Indian bazaar goods, French railway and construction material, American petroleum, and miscellaneous European provisions, beverages and manufacturers are here imported. The western trade goes through Gambela, a station leased by the Sudan Government, which is served by steamboat from Khartum in the summer months, when there is sufficient water in the Sobat River, on which it stands. The northern trade, from Gondar goes through Italian Eritrea and the port of Massawa.

**General Information.**—There is a National Bank of Abyssinia,

## Afghanistan.

with head office at Addis Abbaba, and branches at Harar, Dire Dawa, Gore and Gambala. The Governor of the Bank of Egypt is its President. The current coin is the Maria Theresa dollar (worth 2s.), but a new coin, the *talari*, also worth about 2s., has been introduced. The piastre is one-sixteenth of the *talari*, and there are also half and quarter dollars of silver. The copper *besa* is one-hundredth of the dollar. Barter, however, is common, and such articles as salt and cartridges are used as currency. Native weights and measures vary with the locality. The metre is largely used at Harar. There are British Consuls at Addis Abbaba, Harar, Gondar, Gambela, Gardulla and Magi.

## ADEN AND DEPENDENCIES

**Area and Population.**—Aden is a British fortress, to which are attached for administrative purposes the island of Perim, the Aden Protectorate, Sokotra, and the Kuria Muria Islands (the latter acquired for landing the Red Sea cable). It is administered by a Political Resident, who is also General Officer Commanding. The area of Aden itself is 75 square miles, and population nearly 50,000. The area of the Protectorate is 9,000 square miles, of Perim 5 square miles, and of Sokotra (population 12,000) 1,382 square miles. The total trade of Aden during the last three years (1918–1920) averaged £10 millions (excluding Government stores and treasure), since, owing to the large number of vessels touching at Aden (which is a coaling station), it is an important point of transhipment for various points on the Indian Ocean.<sup>1</sup>

**General Conditions.**—Aden and its dependencies lie in the Gulf of Aden, near the entry to the Red Sea. All share the exceedingly hot and dry climate of this region (latitude 12°–14° N.). Hence there are no agricultural industries, and *salt* is the only commodity of local origin. Coffee, gums, hides and skins from the neighbouring parts of Africa (including Sokotra) and Arabia are marketed at Aden; tobacco is imported from India and elsewhere, and made into cigarettes for re-export; cotton piece goods from the United Kingdom and India are imported in large quantities and redistributed to various native African and Asiatic markets, including Zanzibar, Djibouti, Mocha, Bahrein Islands, Basra and others.

The chief coin in use is the Indian rupee. There is an Indian Inland Post Office at Aden, and a branch of the National Bank of India. There is cable connection with the United Kingdom, India and Zanzibar.

## AFGHANISTAN

**Area and Population.**—The independent Kingdom of Afghanistan is ruled by an Amir, and has an area of 250,000 square miles, and a population of about 5 millions. The capital, and largest city, Kabul, has a population of 180,000; Kandahar, in the south, the chief trade centre, has 30,000; Herat, in the west, has 20,000; and Tashkurgan, in the north,

<sup>1</sup> For map see Arabia.



## Afghanistan.

has 17,000. The economic importance of Afghanistan is not great, the total trade being estimated at little more than £5 millions (i.e. £1 per head). It commands, however, the main land-route into India, by the Khyber Pass, and is a buffer State between British India and Russia in Asia. The Afghans are, by race and speech, allied to the Persians, and are Mohammedans by religion ; besides the Afghans proper, there are aboriginal hill-tribes allied to those of India. The language spoken is Pushtu.

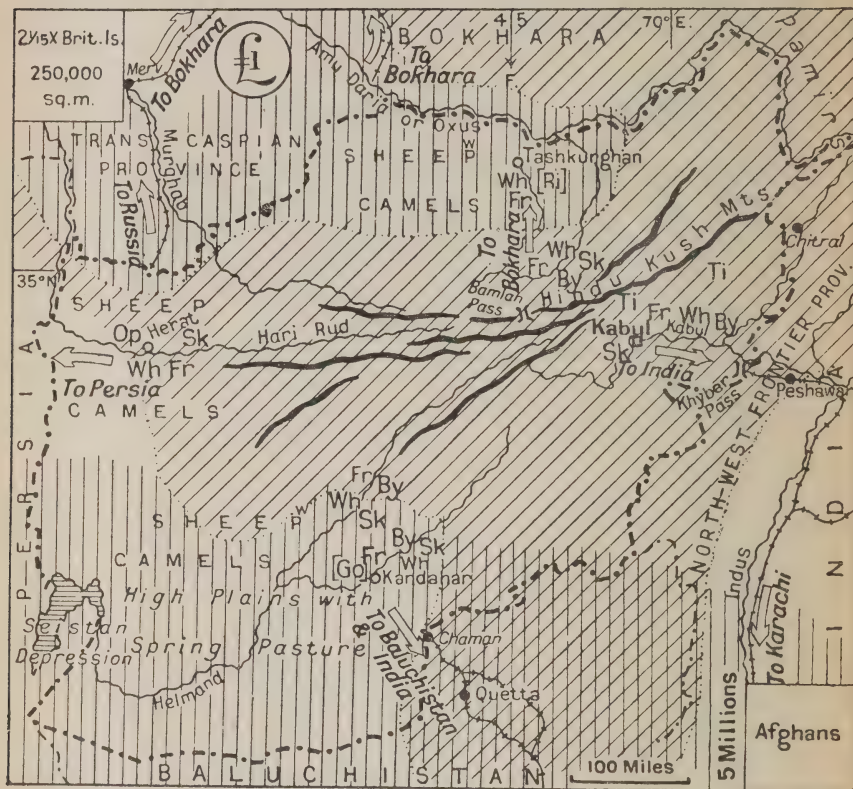


FIG. 2.—AFGHANISTAN.

### Position, Climate and General Physical Conditions.

—Afghanistan lies to the north-west of India, between latitudes  $29^{\circ}$  N. and  $38^{\circ}$  N., i.e. the latitudes of Algeria and southern Spain. The climate resembles that of the interior of Algeria, i.e., the rainfall is scanty, occurring chiefly in winter and spring, and the summer heat is great, although in winter the cold may be severe. The severity of winter in Afghanistan is accentuated by the great elevation. The core of the country is formed by the lofty Hindu Kush Mountains, which run out in a south-westerly and westerly direction from the Pamirs. The spurs of this range die out to the



## Afghanistan.

west and south upon a series of elevated plains, forming part of the Persian Plateau. Northwards the mountains also fall to a plain, which in this case lies at a low level, and forms part of the great plain of Turkestan, drained by the Amu River. To the east the mountains drop sharply to the plains of India, beyond the Afghan frontier. The Hindu Kush Mountains receive abundant snow and rain, and great rivers drain from them in all directions. Of those draining west, the Kabul River, an affluent of the Indus, is the most important, since the route from Peshawar, via the Khyber Pass, follows its valley to Kabul City. From the northern slopes of the Hindu Kush streams flow towards the Amu, but lose themselves on the dry plain. On one such stream stands Tashkurgan. On another, the Murghab, farther west, stands Merv, a traffic centre in (former) Russian territory. Westward from the mountains the Hari-Rud, with Herat in its lower valley, flows towards the Persian frontier. Southwards the drainage is by the Helmand to the Seistan depression on the frontier, and in the valley of an affluent of this river Kandahar is situated. These river valleys, carrying the water from the mountains to the dry plains, are the traffic routes, and the centres of cultivation and settlement of Afghanistan : hence their association with the leading cities.

The northern plain has early summer rain, and for a brief season takes on the character of a steppe pasture, gay with flowers, but for the greater part of the year it presents a desert aspect. Similarly the light winter rains on the western and southern high plains lead to a brief spring season of blooming vegetation, which rapidly withers under the summer sun. The lower mountain slopes are clothed with hardy evergreens, wormwood scrub, ilex, wild olives, figs and pomegranates. The higher ranges are clothed with forests of oak, pine and cedar resembling those of the Himalayas.

**Human and Economic Conditions.**—Wherever sufficient water is available—whether as rain or from streams and wells—the ground is cultivated. Winter **wheat** and **barley** are the chief cereal crops, and in well-irrigated regions some *rice* is grown in summer. Other crops are lentils, peas, beans, etc. *Opium* is grown near Herat, besides various *drugs*, including asafœtida. Of far greater importance, however, are the crops obtained from the extensive orchards. These include apricots, peaches, cherries, plums, figs, almonds, walnuts, mulberries, the whole range of **fruits** and **nuts**, in fact, which are associated with Mediterranean countries. These form a staple of diet, and yield a surplus for export, the fruits usually in a dried state. On the mulberry leaves **silk**-worms are reared, and native silk and silk goods are an article of commerce. During the season when the plains bear pasture they are grazed by large flocks and herds, which are driven to the river banks or to the mountains for the remainder of the year. *Sheep*, *goats*, *camels*, and *horses* are reared, and *wool*, *hair*, *hides*, *skins* and sheep-skin coats are articles of export, besides affording material for native manufactures. *Timber* is sent down from the mountains to the plains, and into India.

**Trade Relations.**—Railways approach or reach the Afghan frontier at several points, but all interior trade is by pack-animals—camels, donkeys or ponies. The bulk of the external trade (60–70 per cent.) is with India, going through the Quetta railway, which reaches the frontier at Chaman, south-east of Kandahar. Fruit, nuts, grain, wool, hair, hides, silk and drugs

**Alaska.**

leave the country, in return for cotton piece goods and yarn (of Indian origin), sugar, tea and miscellaneous hardware. There are alternative routes via the Indian north-west frontier railways to Kabul. There is a small interchange with Persia by way of Herat, and the latter town is not far from the terminus of a branch of the Russian Trans-Caspian Railway, which runs to Merv, hence Russian cotton textiles and manufactures enter by this route. Russian goods, together with native wares (silks, carpets, rugs), come also by way of Bokhara, whence a railway runs to the bank of the Oxus and a caravan route thence to Tashkurgan, and over the Bamian Pass (in the Hindu Kush) to Kabul. Trade is mainly in native and Indian hands, and is often by barter.

**General Information.**—The unit of currency in Afghanistan is the Kabuli rupee, worth normally about 8*d*. The country does not belong to the International Postal Union, and all bulky parcels, etc., must be forwarded to the Afghan Postmaster, Peshawar, India, with whom the postage must be deposited, unless it is paid by the recipient.

**AFRICA, BRITISH EAST**

[See **British East Africa**, p. 77.

**AFRICA, BRITISH SOUTH**

See **British South Africa**, p. 105.

**AFRICA, FRENCH EQUATORIAL**

See **French Equatorial Africa**, p. 225.

**AFRICA, FRENCH WEST**

See **French West Africa**, p. 231.

**AFRICA, PORTUGUESE EAST**

See **Portuguese East Africa**, p. 395.

**AFRICA, PORTUGUESE WEST**

See **Angola**, p. 17.

**ALASKA**

**Area and Population.**—Alaska is an outlying territory of the United States, acquired by purchase in 1867, and is administered by a

## Alaska.

Governor. It has an area of 591,000 square miles (nearly five times as large as the British Isles), and a population of only 65,000, of whom a large proportion are Eskimos and Indians. Juneau, the capital, has 3,000 people. The total trade in 1918-19 (almost entirely with the United States) was £25½ millions, of which £16½ millions, or 65 per cent., represented exports. There was a considerable falling-off of exports in 1919-20 (for which the total trade figure was £20 millions), due to lack of labour at the mines and inadequate transport facilities. In 1919, however, the trade worked out at £310 per head of the resident population, but there is besides a temporary influx of some 20,000 workers in the summer season. Such a high figure is usual where practically every necessity of life



FIG. 3.—ALASKA.

must be imported, and where almost the entire production is sent out of the country.

**Position and General Physical Conditions.**—Alaska proper forms the north-western peninsula of North America, and lies roughly between 60° and 70° N., i.e. a considerable portion lies within the Arctic Circle. Politically the territory also includes a littoral region with numerous islands extending southwards to latitude 54½° N., and cutting off the north of British Columbia from the sea. The whole of this littoral belt, together with the southern margin of Alaska proper, and its extension through the Aleutian Islands, forms part of the great western mountain system of



## Alaska.

North America. The coast resembles that of Norway, with its deep, fjord-like indentations, and as the prevailing winds are from the west, the rainfall is heavy, the mountain slopes are well timbered with coniferous trees, and the climate is unusually mild for the latitude, the harbours being unencumbered by ice. In the interior of Alaska, to the north of the mountains, the country is of relatively uniform elevation, and the chief topographical feature is the Yukon River, which flows from east to west, and enters the Pacific Ocean to the south of Behring Strait. It is navigable for a short season in summer, and is ice-bound in winter. A great part of the Yukon Basin is lightly timbered, especially in the valleys, with spruce, hemlock, birch, aspen, etc., but towards the north it takes on the character of tundra, a treeless waste, clothed with mosses, lichens and dwarf shrubs.

The native Eskimos use dogs as draught animals, since the caribou, or American reindeer, has not been domesticated. Siberian reindeer have, however, been introduced, and it is hoped that they will become widely used for transport purposes, since the settlements are scattered over such a vast area.

**Human and Economic Conditions.**—The rivers of south-eastern Alaska, like those of the adjacent territory of British Columbia, teem with **salmon**, and hence salmon fishing and canning is the leading industry of the region, the output being worth over £10 millions. There are besides sea-fisheries of *halibut*, *cod*, herrings and whales which yield products to the value of nearly £2 millions. On Pribilof Islands there is a carefully protected rookery of *fur seals*, numbering half a million.

Next in importance to the fishing industry is the *mining* industry, chiefly of **gold**, followed by **copper**, but there is also some silver and lead mined with the gold, and there are promising **tin** deposits in the Seward Peninsula north of Nome. In the Juneau district the gold is obtained from quartz lodes, while elsewhere, e.g. in the Copper River district, behind Nome, and in the Yukon and Tanana valleys, the chief yield is from placer mining. Dredges are employed, and the gold is recovered by hydraulic sluicing, so that relatively low-grade gravels continue to be worked. The output in 1919 was 437,000 fine ounces.

Copper is principally obtained in the Chitina district, in the Copper River basin, the value being over £2½ millions. There are copper mines also in the Ketchikan district, in south-eastern Alaska, near the frontier of British Columbia.

**Coal** is mined in the Matanuska field, reached by the railway under construction from Seward to Fairbanks, the output being about 50,000 tons. There is also coal in the Tanana valley which will be useful in the local mining settlements, and a third deposit readily accessible from the sea occurs on Cook Inlet. The total mineral output for 1919 was £3¾ millions, representing a considerable decrease on that of 1918, which was again less than that of the year before. High operating costs, shortage of labour, and a short season were among the contributory causes to this decline and 1920 showed some improvement. *Oil* has been proved in the Cold Bay district.

The *forests* of Alaska have so far been exploited only for local needs (fuel and construction), except that some excellent aeroplane timber was exported during the War. Some of the trees of the coast belt, especially in

## Albania.

the south-east, are of considerable dimensions, and are suitable for sawn timber, but, broadly speaking, these forests are more suitable for exploitation as **pulp-wood**. Since there is abundance of water-power, and the forests are on the seaboard, it is probable that a considerable paper and pulp industry will be developed in Alaska.

**Trade Relations and General Information.**—A railway runs from Skagway (at the head of the Bay on which Juneau stands) to White Horse, whence the Canadian Klondyke is reached by coach or river steamer. Railways also run inland from Cordova and Seward, and the Yukon is navigable in summer. Reindeer for transport purposes have been successfully introduced from Siberia. Trade is with the Puget Sound port of Seattle and with Vancouver. Money, weights and measures are as in the United States.

## ALBANIA

**Area and Population.**—The independent State of Albania was formerly part of the Turkish Empire, but is now under the control of Italy, since that State wishes to protect Italian interests in the Adriatic, and in particular to control the Straits of Otranto, of which Albania forms the Eastern seaboard. The area of Albania is about 11,000 square miles ( $1\frac{1}{2}$  times as large as Wales), and the population probably less than a million. The boundaries are at present in dispute. There are two racial groups: the warlike Ghegs in the north, who are mainly Roman Catholics, and the more peaceful Tosks in the south, of whom a majority are Mohammedans, while a substantial minority belong to the Greek Orthodox Church. There are also some Mohammedans and some Greek Christians in the north. The Albanian language (with differences of dialect) is generally spoken. The largest town, Scutari, has 32,000 inhabitants; Durazzo, a port, and the provisional capital, has only 5,000; Valona, also a port, has 6,500. Statistics of foreign trade are not available, but the total amount is very small.

**Position, Climate and General Conditions.**—Albania lies on the west of the Balkan Peninsula between latitude  $39\frac{1}{2}^{\circ}$  N. and  $42\frac{1}{2}^{\circ}$  N., i.e. in the latitudes of southern Italy. It has the



FIG. 4.—ALBANIA.

**Algeria.**

"Mediterranean" type of climate, with hot dry summers, and mild rainy winters, but this applies merely to the valleys and small coastal plains. The interior is mountainous, and here the summers are cooler, the rainfall heavier, and the winters stormy and often severe. The bordering states are Jugo-Slavia (including Montenegro) and Greece. The North-Eastern mountains are forested with oak, beech and pine; those to the south have largely been denuded of heavy timber and are covered with scrub. The lowlands have the typical Mediterranean vegetation of aromatic and ever-green shrubs and undershrubs. Cultivation is very primitive. Cereals, including **wheat**, do well, as also *vines* and orchard *fruits*. **Olives** are cultivated and those of Valona are of some repute. **Tobacco** of good quality is also grown for export. Livestock, principally *sheep* and *goats*, besides a few horses and cattle, are reared on the hill pastures, and some wool and hides are exported. The mountaineers live mainly on the produce of their flocks and herds.

Albania has no railways, and interior trade is by pack-mule or donkey, hence external trade is mainly by sea, passing through Durazzo or Valona. The agricultural and pastoral produce goes to Italy, or (before the War) via Trieste to Austria, and the manufactured goods imported come mainly from the same sources. Of such goods, textiles (especially cottons) are most important, while general ironmongery and timber for building (from Bosnia) are also in demand. Valona, which has a good harbour, and lies within easy reach of Brindisi (Italy), is intended to be the head of the trans-Balkan railway running eastward to Salonica and Constantinople.

**General Information.**—Albania has no banks and no currency of its own.

**ALBERTA**

See **Canada**, p. 123.

**ALGERIA**

**Area and Population.**—The French Colony of Algeria is administered by a Governor-General; it has an area of 343,500 square miles ( $1\frac{2}{3}$  the size of France), including the Military Territory, and a population of nearly 6 millions, including over  $\frac{3}{4}$  million Europeans. The foreign trade was £52 millions in 1918, or about £9 a head, and this did not represent nearly the normal volume as indicated by the figures before the War. In 1919–20 the average was £140 millions, taking the franc at par, equivalent to £74 millions if the depreciated currency is allowed for. Imports are in excess, as developments are proceeding. The capital and chief port, Algiers, has a population of nearly 180,000, and the second seaport Oran has about 125,000. Constantine has 65,000, and eight other towns have upwards of 20,000 people. The proximity of the colony to the mother country (Marseilles to Algiers is one day's journey) and the fact that the Algerian climate



## Algeria.

allows the staple French industry, wine growing, to be prosecuted with success, has made this the most valuable and prosperous of all the overseas possessions of France, and it has attracted the greatest number of French colonists, over half a million. There is also a large Spanish population, besides some Italians. The native people include Berbers and Kabyles, the majority of whom are agriculturists, besides Arabs and Tuaregs in the southern region of deserts and oases. All these people are Mohammedans, and there are also a considerable number of Jews in the towns.

**Position, Climate and General Physical Conditions.**—Algeria lies on the north coast of Africa and on the southern shore of the Mediterranean, opposite to France. It extends roughly



FIG. 5.—ALGERIA.

between latitude  $30^{\circ}$  and  $37^{\circ}$  N., and longitude  $2^{\circ}$  W. and  $8^{\circ}$  E. of Greenwich. The hill and mountain ranges run parallel to the coast, i.e. from west to east, and in the coastal belt there is a series of valleys and small plains lying between the sea and the Lesser Atlas, which is known as the Tell. This region has the typical Mediterranean climate—warm moist winters, hot dry summers—and is the principal agricultural area and the home of the European colonists. The Tell is watered by permanent rivers. Behind the Little Atlas range is a high plateau, with much lighter rainfall, and greater extremes of temperature, characterised by a number of irregular, shallow, saline lakes, the Shotts, from which it takes its name. The inner margin of this plateau is formed by the Saharan Atlas, which drops to the practically rainless and extremely hot Sahara desert.

In the Tell, the hill and mountain slopes are clothed with cork and holm oak, myrtles, tree heaths and cedars, and with such herbs as lavender and rosemary, a vegetation similar to that of the south of Spain and Italy. The arid Plateau of the Shotts is clothed with tufts of alfa or esparto grass,

## Algeria.

varied with wormwood, dwarf-palms, and other small shrubs, and desert-grass on the sand-dunes. In the gorges of the Saharan Atlas a few trees—evergreen oak, juniper and stone-pine appear again, while in the desert itself there are rare tussocks of thorny and succulent plants, and deep-rooted shrubs with drought-resisting powers. Around springs, wells, and wadies are the oases, characterised by great groves of date-palms.

**Human and Economic Conditions.**—The chief source of wealth of the European and native cultivators of the Tell is the vineyards, about 140 million gallons of **wine** being produced, which are sent to France for blending with the French wines. Next in importance are the cereal crops, **wheat** and **barley**, grown in winter and harvested in early summer. They feed the local population and provide a considerable surplus for export, which was of great value to France during the War. Owing to the southern position of Algeria, and the excellent transport facilities, a large trade has developed in early vegetables, notably **potatoes** (crop 80,000–100,000 tons), besides tomatoes, peas, beans, asparagus, and so forth. The climate is also admirably suited to the growth of fruits, the exports of **figs** and **mandarin oranges** being especially important. The olive also flourishes as in Southern Spain and Italy, and large supplies of **olive oil** are sent to the soap-works and sardine-canneries of Marseilles. Another staple crop of the Tell is **tobacco**, which supplies a number of large cigarette and cigar factories in Algiers and Oran. American, West Indian and South American tobaccos are imported for blending, and there is a considerable export of the products, besides a supply for the big local market.

On the hills and mountains, and especially on the plateau, pastoral industries are extensively carried on. There are in the country about 9 million **sheep** and nearly 4 million **goats**, besides over 1 million horned cattle. Live sheep form a very considerable export, so that wool and sheep-skins are of less importance than would otherwise be the case. Enormous numbers of goat-skins are, however, available for export. A refrigerating plant for mutton has been established near Algiers.

There are fisheries for sardines, anchovies, tunny and other Mediterranean **fish**, worth about £ $\frac{1}{4}$  million annually.

In the Saharan oases—Figig, Ain Sefra, Ghardaia and others—**dates** are the money crop and form an important article of export; **camels** are reared for local use.

**Cork** is gathered from the forests of the Tell, and **esparto grass** is gathered on the plateau of the Shotts, especially behind Oran.

The **mineral** deposits of Algeria are very important, although labour and transport difficulties materially reduced the output during the War, and conditions are not yet restored to normal. Of greatest value are the **iron ores**, found close to the coast near Oran and Philippeville, and yielding about 1½ million tons annually. Next in importance are the enormous deposits of rock **phosphates** in the arid interior, which are converted into super-phosphates at factories near Oran, Algiers and Bona. Nearly equal in value to the phosphates are the **zinc** ores (over £ $\frac{3}{4}$  million), which occur in the inner margin of the Tell, and there is, besides, a fair output of **antimony**.

**Trade Relations.**—Algeria has a well-developed railway system, running from west to east through the Tell, with branches to the principal sea-

## **Anglo-Egyptian Sudan.**

ports, and to the phosphate mines and chief oases of the interior. Before the War from 80 or 90 per cent. of the imports into Algeria came from or through France, while between 60 and 70 per cent. of the exports went into France. The shortage of manufactured goods and of food-stuffs in the mother country during the war years reversed these percentages, so that the United Kingdom, United States and Spain were able to improve their respective positions in Algerian markets. British exports to the country reached nearly £4 millions in 1920, as against under one million in 1914. These included coal and machinery, besides some cotton goods, the return trade being in iron ore, esparto grass, zinc ore and phosphates. Cotton goods, clothing and linen make up the largest total of imported goods, and are supplied by France, Italy and Spain. Motor-cars are in good demand, the roads being excellent, and are practically all of French manufacture, but the United States supplies some agricultural machinery, including motor-tractors. Coffee and sugar are the chief imported food-stuffs, coming either direct from Brazil and the West Indies, or through the United States, or through France.

Algeria is a very prosperous country, and the agriculturists of the Tell require all the classes of manufactured goods that Great Britain can supply. There is also a deficiency of rolling stock, locomotives, and metal goods generally.

Both at Algiers and at Oran there are excellent harbours, accommodating the largest vessels. The latter is the nearest port for Britain.

**General Information.**—The money, weights and measures are as in France, the unit of money being the franc, of which normally 25·225 francs = £1 sterling. The metric system is employed. The Bank of Algeria issues notes, and there are several agricultural co-operative banks in operation. Messrs. Cox & Co., Ltd., have opened branches in Algiers and Oran. Algeria has an important and lucrative tourist industry. There are sailings three times a week between Marseilles and Algiers carrying mails, but the pre-war direct service (German) from Southampton has been discontinued. There is a British Consul-General at Algiers, and Vice-Consuls at Arzeu, Bona, Constantine, Oran and Philippeville, of which towns all but Constantine are seaports.

## **ALSACE**

See **France**, p. 216.

## **ANGLO-EGYPTIAN SUDAN**

**Area and Population.**—The Anglo-Egyptian Sudan is administered by a Governor-General who is a British officer, appointed by the Egyptian Government with the assent of Great Britain. It is divided into fifteen provinces, of which the Governors are either British officers or British civil officials in the Egyptian Service. The area of the country is rather over 1 million square miles (about the area of British South Africa), and has a native population estimated at nearly 3½ millions. The foreign trade has risen from £3½ millions in 1913 to £8 millions in 1918, i.e. it is



## Anglo-Egyptian Sudan.

rather more than £2 a head. A fall to £7·8 millions in 1919 was due to a failure of the rains and to transport difficulties. The undeveloped resources of the country are very great, and the Government makes every effort to foster industry. The chief urban centres are grouped together at the junction of the Blue and White Niles: they are Omdurman (the old Dervish capital) pop., 50,000, Khartum, the administrative centre, pop., 16,000, and North Khartum pop., 11,000. The people of the northern Sudan are Arabs, while those to the south are negroes (Shilluks, Nuers, Dinkas), but in

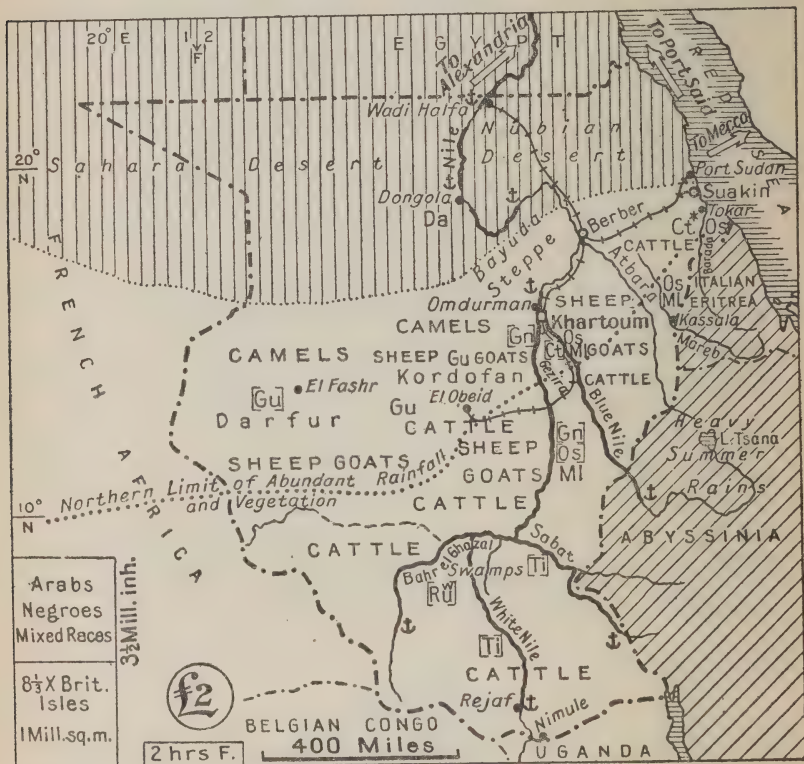


FIG. 6.—THE ANGLO-EGYPTIAN SUDAN.

the Nile Valley itself there has been a great intermingling of peoples. A beginning has been made of elementary education in a few centres, and higher instruction is given at Gordon College, Khartum. Industrial workshops have also been commenced, and the Education Department is undertaking agricultural research and instruction.

Government control is most complete, and economic conditions most advanced in the provinces which have an Arab population, or a large Arab element, namely Halfa, Dongola, Berber, Red Sea, Kassala, Khartum, Blue Nile, White Nile, Kordofan and Sennar. In Nuba Mountains, Bahr

## **Anglo-Egyptian Sudan.**

el Ghazal, Upper Nile and Mongalla, where there is a primitive negroid population, control is looser and cultivation more backward. Darfur, too, conquered in 1916 from its Arab Sultan, is not yet fully occupied.

**Position and Climate.**—The Anglo-Egyptian Sudan stretches from within about  $5^{\circ}$  N. of the Equator to latitude  $22^{\circ}$  N., the boundary of Egypt, thus it is entirely tropical and falls into belts according to the seasonal incidence of the rains. The winter is everywhere dry, and the temperature is high, although not excessively so, while the nights are refreshingly cool. The rainy season begins in early spring in the extreme south, so that in the Upper Nile and Bahr el Ghazal regions the wet season lasts six months or more. The total fall is, however, from 30 to 40 in. only. In the next belt—roughly from  $10^{\circ}$  to  $15^{\circ}$  N.—the rainy season lasts between four and six months, but the total fall is from 10 to 20 in. only. North of Khartum, rain may fall during the summer months, but the total is under 10 in., i.e. the climate is that of the desert, and agriculture without irrigation is impossible. The rains generally occur with south-westerly monsoon winds, which blow towards Abyssinia, and hence the rainfall is slightly higher towards the margins of the latter country. In the dry season the north-east trade wind prevails.

**General Physical Conditions.**—The essential feature of the Anglo-Egyptian Sudan is the Nile. Leaving Uganda at Nimule this river flows through a level swampy plain as the Bahr el Jebel, and in latitude  $9^{\circ}$  N., receives from the west the Bahr el Ghazal, which flows sluggishly through similar country, so that this section of the river is liable to be obstructed by masses of floating vegetation (sudd) torn up during flood time. The Bahr el Ghazal country is fairly well watered and consequently is wooded, and has wild rubber vines. Beyond the El Ghazal confluence, the Nile receives no more tributaries from the west, the country being too dry. It is clothed with scrub, made up mainly of thorny shrubs, and these include many that bear gums, for which this district (Kordofan and Darfur) is noted. On the east of the Nile valley the well-watered Abyssinian highlands send down the summer flood waters through the Sobat, the Blue Nile and the Atbara. Of these the Blue Nile is the most important, and at its junction with the White Nile stand Omdurman and Khartum, while in the angle between the rivers is the fertile plain known as the Gezira, which it is proposed to irrigate. Broadly speaking, the country as far north as Khartum is of the savannah type, merging into woodland in the Bahr el Ghazal and towards the Abyssinian highlands, and passing over into scrubland in Kordofan. North of Khartum, cultivation is only possible in the narrow Nile valley itself, the country on either hand becoming increasingly arid until it merges into the Sahara. Westwards the low plateau of the Sudan rises to the Tibesti highlands, on the frontier of French Sahara, while eastwards, it rises to the broken uplands of the Nubian Desert, bordering the Red Sea. In the south of the Nubian Desert the river Baraka, flowing northwards from the Abyssinian highland, provides water for cultivation in the Tokar district (Red Sea Province).

**Human and Economic Conditions.**—The Anglo-Egyptian Sudan is essentially a pastoral country, the savannah regions and open



## Anglo-Egyptian Sudan.

wooded regions of the south being suitable for horned *cattle*, while the scrublands and poorer grasslands support large numbers of *sheep* and *goats*, and the nomad desert tribes rear *camels*. Since Egypt rears cattle mainly for draught purposes, there exists an immediate market for animals for meat, and the trade has therefore considerably expanded. A maximum of 39,000 cattle and 209,000 sheep and goats, worth well over a million sterling, were exported in 1918, although 1919, a bad year, showed a falling off. For the continued growth of this industry it will be necessary to control the cattle-diseases endemic in the rainy southern regions, and to provide additional wells in the regions of uncertain rainfall farther north, besides improving the means of communication, so that cattle from regions at present inaccessible can be marketed. El Obeid, the rail-head in Kordofan, and Omdurman, are important stock markets. **Hides and skins** are naturally also important articles of trade, half a million being exported in 1919, with a value of nearly £1½ million. A well-organised Veterinary Department is at work.

Wild elephants roam the savannahs, and consequently there is a small export of *ivory*. The most important wild product of the country is **gum arabic**, coming mainly from the semi-arid province of Kordofan, but also growing in Darfur, and in the White Nile and other provinces, where climate conditions are similar. The quantity exported is about 14,000 tons, worth nearly £½ million.

Agriculture is carried on in the south without irrigation, while in the centre and north the peasants depend mainly on the natural floods of the Nile and of the torrents (Khors) from the Abyssinian highlands. Of the latter the most important are the Khor Baraka (partly under control), which waters the Tokar region, and the Khor Gash, which spreads out into a delta at the foot of the mountains by Kassala. Important irrigation schemes, notably that for watering the Gezira Plain, have been held up by the War, but some preliminary work is completed, the necessary loans have been arranged, and active work has been renewed.

The most important crop is **dura** (millet), which is the staple food of the people, and in good years yields a surplus for export (maximum value £672,000 in 1917). Secondary crops are *ground-nuts*, *sesame*, and (in the oases) *dates*. Of greater economic importance is, however, the **cotton** crop. This is grown mainly in the Tokar district, but also in the Gezira and the Nile valley. The maximum output was nearly 24,000 bales of 400 lb. in 1915, this figure being almost equalled also in 1917 (value £600,000), but until the irrigation schemes and railway construction are completed the industry can be conducted on a small scale only. The cotton fetches a high price, and insect pests appear to be absent.

The forests which line the river banks in the south contain valuable *timber* trees, and also *tanning* materials; there is, besides, wild *rubber* in Bahr el Ghazal Province. Experiment has shown that rubber, manioc (tapioca), tobacco, and coffee, are crops that would succeed in the rain-watered region.

**Trade Relations.**—Since there is communication both by rail and river between the Anglo-Egyptian Sudan and Egypt, trade naturally follows this direction. The bulk of the exports are credited to Egypt, although actually these are mainly in transit. Thus Great Britain takes gum, cotton, ivory, hides and skins (the gum going formerly to Germany), the United States takes gum, hides and skins, while France also takes some



## Angola.

gum. The arid countries near by, e.g. Eritrea and Arabia, normally take the surplus grain and some cattle (Suakin being the port for Arabia, used also for pilgrim traffic). During the War, however, grain was diverted to Egypt. There is some trade with Abyssinia through Gambela (leased territory), chiefly in coffee, which is exchanged for salt. The greatest import is of cotton fabrics, largely from Great Britain, or by re-export from Egypt, but also from India, which country also supplies tea. Sugar comes from Egypt, biscuits and confectionery from South Africa, while flour and provisions for the Europeans and town dwellers, tobacco and cigarettes, domestic utensils, hardware, tools and implements, glassware, bazaar goods, and so on, for native traffic, come mainly from Great Britain, through Egyptian merchant houses, and to a small extent from Italy and Japan.

Internal communications are maintained by a fleet of Government passenger and cargo steamers, which ply over the Nile and its navigable tributaries from the Egyptian frontier to Rejaf, 90 miles from the Uganda frontier. The railways are also Government owned, and extend from Egypt to Khartum and thence to Sennar and El Obeid. A branch from Berber reaches the Red Sea at Port Sudan and Suakin. A branch to Kassala is planned.

**General Information.**—Language, money, weights and measures are as in Egypt. The National Bank of Egypt and the Anglo-Egyptian Bank have branches at Khartum. Mails reach Khartum in about eight days.

## ANGOLA

**Area and Population.**—The Portuguese Colony of Angola (Portuguese West Africa) has an area of nearly half a million square miles (larger than the Union of South Africa), and a native population variously estimated at from 2 to 4 millions. It is administered by a Governor-General, residing at the principal town and seaport, Sao Paulo de Loanda (population 17–18,000). Considering its vast area, the country is but little developed, the total trade being worth from 2 to 2½ millions sterling. The number of Europeans (largely officials) is only a few thousands.

**Position and General Conditions.**—Angola stretches along the west coast of tropical Africa from 5° to 17° S., i.e. it is in very similar latitudes to Peru, and the climates of the coastal belts of the two countries are alike in being but scantily watered, and increasingly so towards the south. This is due to the fact that the winds are usually off shore, or parallel to the shore, while owing to a cool ocean current in each case, such winds as come from the sea have a relatively low moisture content. The heat is great, but not excessive, and in both countries the interior is elevated. Here, however, the resemblance ceases, for whereas Peru rises to the Andes Mountains, Angola rises to a plateau, varying from 3,000 to 6,000 ft. in elevation, and having a sufficient summer rainfall to support a rich savannah vegetation. The woodlands are of deciduous drought-resisting trees, and true forests only occur on the steeper escarpments, in some of the valleys, and in the wetter coast belt north of 9° S.

## Angola.

The plateau culminates in the Bihé highlands behind Benguela, whence a ridge runs inland, throwing off the drainage to the north and south. The Kwanza, flowing northward, turns and enters the Atlantic near Loanda: the Kunene, flowing southwards, also turns and enters the Atlantic. The interior, however, drains northward to the Congo, and southward to the Zambesi or to the Bechuanaland swamps.

As in Peru, wherever water is available on the coastal belt **sugar** (for rum) and **cotton** do well, but the cultivation is not very extensive. Of more import-

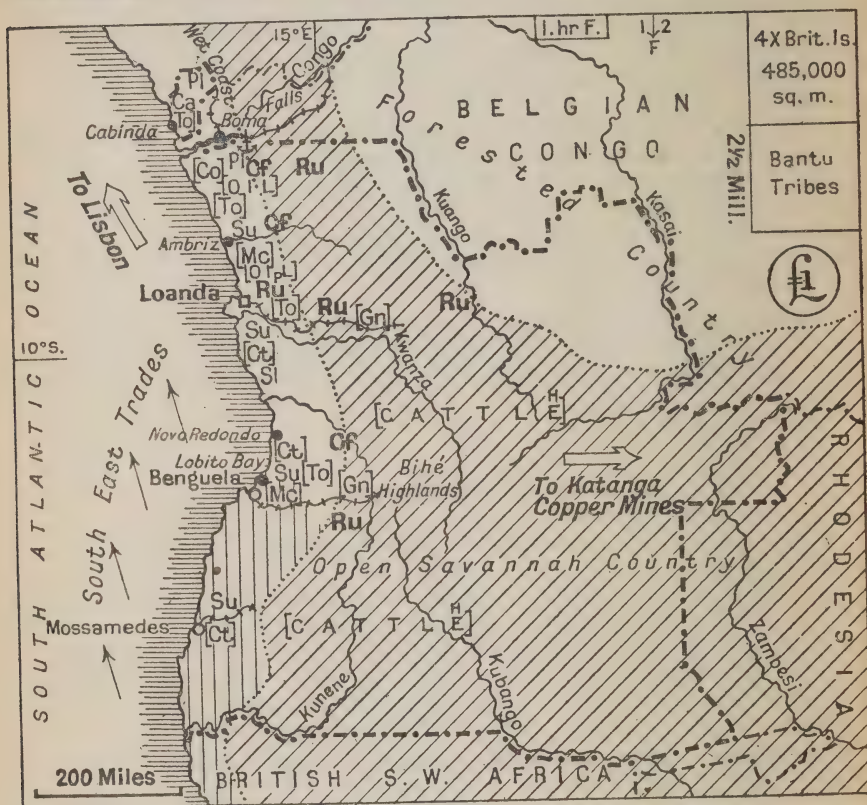


FIG. 7.—ANGOLA.

ance are the **coffee** plantations of the more elevated regions, e.g. behind Ambriz, where the conditions resemble those of British East Africa. Wild coffee is also collected. **Tobacco** is grown and manufactured for local consumption, and in the most northerly (and wettest) region, the Cabinda enclave, which is isolated by a strip of Belgian territory at the mouth of the Congo, **cacao** is grown, and **palm oil** collected. Some wild **rubber** and **wax** are collected, and Ceara rubber has been planted in the Loanda district. The natives of the interior rear cattle and practise a simple agriculture, *manioc* and *ground-nuts* being staple food-stuffs, and the *cattle-rearing* industry is

## Arabia.

capable of development as in Rhodesia. The coco-nut industry is neglected. There is considerable mineral wealth in the Colony, and with the completion of the railways and the organisation of labour, there should be great developments. At present the only trade is in **salt**<sup>1</sup> from the coast marshes, which is sent inland. British, American and Portuguese companies hold concessions for developing *oil*, and a considerable output is looked for. A line runs inland from Loanda, which has a good harbour, and this is open for 375 miles. A second line runs from Lobito Bay, an excellent deep natural harbour close to Benguela, across the lofty and healthy Bihé plateau for 323 miles, and is to be extended along the Congo-Zambesi divide to join the Cape to Cairo Railway in the Katanga copper-mining district. The trade is practically all with Portugal.

The unit of currency is the gold *escudo*, worth normally 4*s.* 5½*d.*, but at present, as in Portugal, paper money is in circulation at a low rate of exchange. The principal banking establishment is the Banco Nacional Ultramarino of Portugal, but the Bank of British West Africa has a branch at Loanda. There is cable communication with S. Africa, S. Thomé, and (indirectly) with Europe. There is a British Consul-General at Loanda and a British Vice-Consul is stationed at Lobito Bay.

## ANNAM

See **French Indo-China**, p. 228.

## ANTIGUA

See **Leeward Islands**, p. 116.

## ARABIA

**Area and Population.**—The peninsula of Arabia is broken up into a number of Arab States, including the Kingdom of Hejaz, the Emirate of Asir and the Imamate of Yemen, which border on the Red Sea; the Sultanate of Koweit, the Emirate of Nejd and Hasa, and the Sultanate of Oman (never subject to Turkey), which border on the Persian Gulf; the Emirate of Jebel Shammar in the interior, and the independent Hadramaut tribes on the south coast. The total area is estimated at 1·2 million square miles, or nearly ten times that of the British Isles, and the population is estimated at 5 millions. Yemen has 1 million, Asir 1½ millions, and the Hejaz ¾ million, i.e. the majority of inhabitants are in the western border of the peninsula. The economic importance of this thinly peopled country, of which half is desert, and but a small fraction really fertile, is obviously slight. It is, however, of political importance, since the Red Sea and Bagdad routes to India skirt it on either side, and the British Bahrein Islands and Kuria Muria Islands, as well as the great coaling station of Aden, lie on its margins. The most important cities are Mecca (80,000 inhabitants) and Medina (40,000), the Holy Cities of Islam, which are in Hejaz: they are

<sup>1</sup> Sl on Map.



**Arabia.**

reached by the railway from Aleppo to Medina, or by the Red Sea port of Jiddah (30,000). Hodeida (40,000) is the chief port of Yemen, and Muskat of Oman. Although the bulk of the people are Arabs (i.e. Semitic), yet there are many negroes in the towns and on the coasts, besides British Indians in the ports, the result of the age-old native traffic between the Arabian, Indian and African shores.



FIG. 8.—ARABIA.

**Position, Climate and General Conditions.**—Arabia lies between latitudes  $12\frac{1}{2}^{\circ}$  and  $35^{\circ}$  N., i.e. it is crossed by the Tropic of Cancer. Situated as it is between the great land masses of Asia and Africa, and shut off from the Mediterranean Sea by the highlands of Syria, the main climate characteristic is almost perpetual rainlessness. The only exception is the lofty south-western buttress of Yemen, which (except on the coast strip) receives heavy summer monsoon rains from a south-west wind. These rains decrease towards the north, through Asir to Hejaz, but

## Argentine Republic.

a certain amount of water makes its way inland by wadis or underground, and supplies the oases. The chief oasis region is the Nejd, which separates the two great desert regions—the Syrian Desert and Nefud in the north, and the Great Arabian or Sandy Desert in the south, which cover half the peninsula. In Yemen, the Nejd, Asir and Hejaz there is light pasture, and some cultivation. Similarly Koweit and El Hasa, on the east, have underground water, while Oman, like Yemen, is very lofty, and its high summits condense some rainfall, so that there are streams allowing of irrigation at lower levels. **Date** groves are characteristic of all the sufficiently well-watered tracts and oases of the peninsula, and the natural rainfall of Yemen allows the famous “Mocha” **coffee** to be grown on the terraced hillsides, besides wheat, barley, vegetables and orchard fruits, such as apricots and figs. Wheat and barley are grown throughout the western margins, maize in the Nejd and in Oman. These agricultural products grown by the settled peasantry are bartered with the nomad Arabs for wool, leather, milk, and for the *camels*, which are the chief animals bred for drawing water and transport. A few small cattle, i.e. sheep and goats, are kept for meat, wool and leather. The Arabs almost universally wear cotton clothing, which is the chief article of import. Coffee and tobacco are their only luxuries, and these are also imported, the coffee of Yemen not being sufficient. Some grain, too, is imported from India into the eastern States. Dates, wool, hides, *salt*, and a little *gum* from the south of the peninsula, besides *pearls* from the Persian Gulf, are the only commodities available for export, and the total trade is very small, probably little more than £1 a head. The Bahrein Islands and Aden serve as entrepôts for East and West Arabia respectively, and there is much coasting traffic in native vessels. Imported goods are mainly of Indian origin, or are re-exports from Bombay, and British Indians form a large proportion of the merchant class.

The British rupee is the accepted currency of the ports, but many other coins are also in use. There is a British Consul at Muskat, a Vice-Consul at Jiddah and a Political Agent at Koweit, which was once considered as a likely terminus of the Baghdad Railway.

## ARGENTINE REPUBLIC

**Area and Population.**—The Argentine Republic, with an area of rather more than a million square miles, and a population of  $8\frac{1}{2}$  millions, has rather less than a third the area and a third the population of Brazil. But whereas the foreign trade of the latter country amounts to only about £7 per head annually, that of Argentina has reached the figure of £39 (total £320 million), and that in the years 1919–20 when the demand of the Republic for foreign goods and manufactures could not be met. This country is thus by far the most important in South America from an economic standpoint, the reason being that it enjoys a combination of natural advantages unequalled elsewhere. Its leading city, Buenos Aires, has over  $1\frac{1}{2}$  million inhabitants, i.e.  $\frac{1}{2}$  million more than Rio, and it has two great inland cities: Rosario, on the Parana, with over 200,000 people, and Cordoba with over 150,000, besides fourteen towns with more than 20,000 inhabitants. Only three of the latter are sea-ports, La Plata, Mar del Plata (also a pleasure



## *Argentine Republic.*

resort) and Bahia Blanca, for of all the South American Republics Argentina is that in which it has proved easiest to open up the interior. The male population outnumbers the female by more than  $\frac{1}{2}$  million, in consequence of the heavy male immigration.

**Position and Climate.**—The Argentine Republic faces the Old World, stretching from the high Andean ridges down to the South Atlantic Ocean. The extreme north of the country lies north of the Tropic of Capricorn, about the same distance from the Equator as Calcutta in the northern hemisphere. The extreme south lies in latitude  $55^{\circ}$ , that is to say as far from the equator as Newcastle (Eng.). This great extent of the country from north to south gives an exceptionally wide range of climates and products, both animal and vegetable, with the result that whereas a "bad year," due to bad weather, drought, locusts, disturbed markets, or what not, may affect one or two staples, it is counterbalanced by a normal or good year enjoyed by other groups of products, so that the prosperity of the country as a whole is usually unimpaired.

Besides this, the fact that the greater part of the country lies in the warm temperate zone, the pleasantest in the world, and also faces the Atlantic, has given it a very large immigrant population from Europe. Italians are the most numerous, accounting for one-third (half during the period 1857–1915) of the total number of foreign colonists, next come the Spaniards, followed by Germans and Austrians, French, Russians, Levantines, Britons and Swiss in the order named. The importance of a particular national group of immigrants cannot, however, be judged from numbers alone. The Italians, (immigrant) Spaniards, and Russians, are for the most part illiterate peasants, belonging to the labouring class, while the French, Germans and British are well educated and usually possessed of some capital, so that they take their place as land owners, or as members of the business community.

These people, of so many different nationalities, with their different aptitudes, ideas and traditions, have played their part also, in establishing that diversity of productions which is the strength of the country. Whereas a few generations ago, the colonial-born Spanish landed proprietors, living on their great estancias, were content to live like the gauchos, mainly upon meat, the immigrants demanded the varied diet to which they were accustomed. Thus French settlers take a prominent part in viticulture, Italians engage in the intensive cultivation of maize, Basques from the Pyrenees make butter and cheese, while Syrians engage in petty trade, and Britons seek to improve the half-wild cattle by the introduction of pedigree stock for which their country is famous.

Furthermore, both the peoples of the Mediterranean lands, and the Russians from the Ukraine, were accustomed to farming in regions of marked seasonal drought, and somewhat low annual rainfall. Hence the farming of the interior provinces of the Argentine, which were by many people considered to be too arid for crops, has presented little difficulty.

The rainfall in the Argentine diminishes from north to south, and also from the east coast towards the interior. Hence there is a belt of country at the foot of the Andes, narrow at first, but broadening southwards, which has a very low rainfall, and to the south of the Rio Colorado, in Patagonia, the whole country, from mountain to sea, has under ten inches a year. In the northern and central provinces the winds are variable, and include a fair average of moist winds from the ocean, while sultry weather is often



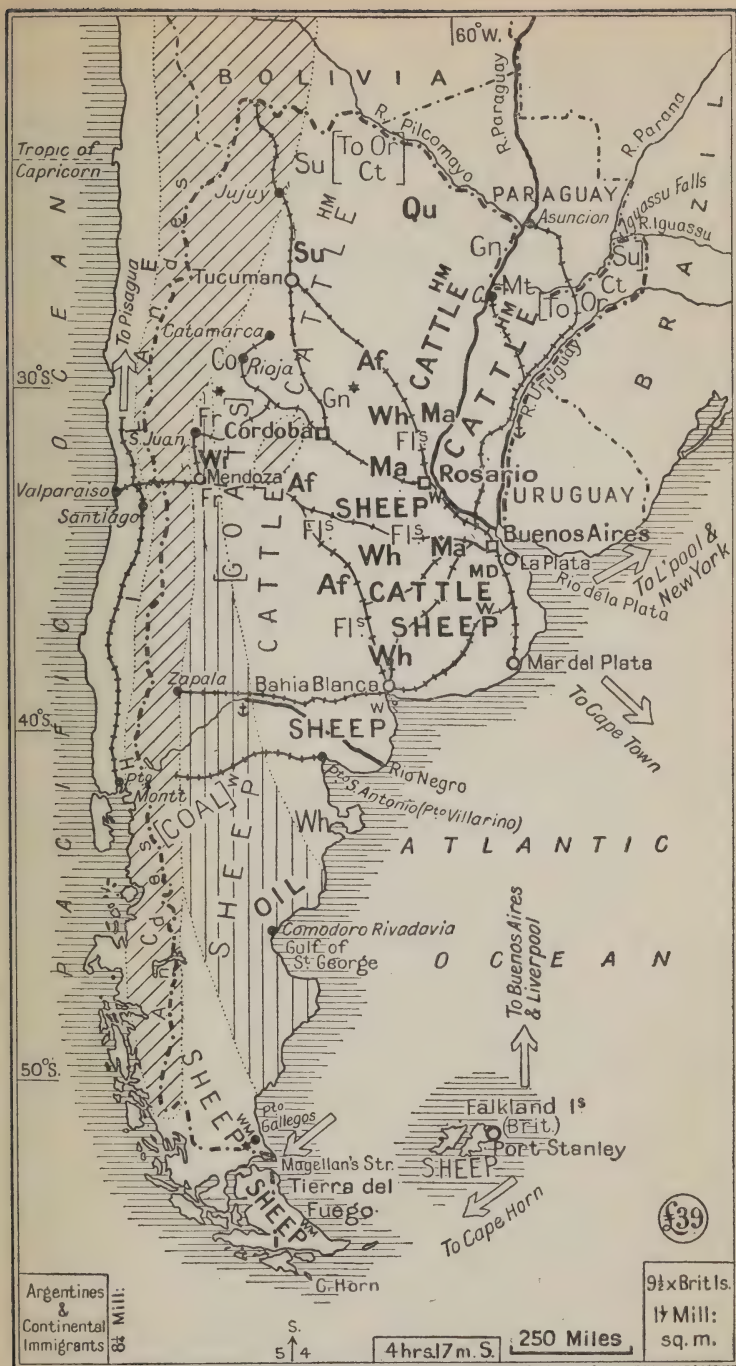


FIG. 9.—ARGENTINE REPUBLIC.

## Argentine Republic.

broken up by the *pampero*, a cold, stormy, south-westerly wind. In the southern provinces, westerly winds are the rule, and these discharge their moisture on the Chilian Andes, leaving Patagonia practically a desert save in the extreme south, where the mountain barrier is lower and more broken.

In the Patagonian region the summers are cool, and the winters decidedly cold, for the land, though level, lies at a considerable elevation. Further north, the greatest summer heat is experienced in the interior provinces, which are as hot as North Africa, while round about the Plate Estuary, the summers resemble those of southern France, and the winters are quite warm, like those, for example, of Algiers.

**Physical Conditions.** — Broadly speaking, the Argentine Republic is a great plain, drained by the main stream of the lower Parana, which runs south, and by its western tributaries, the Vermejo and Salado, which have very little volume in the dry season. The waters of the Pilcomayo, Paraguay and Parana separate Argentina from the Paraguay Republic, and those of the Uruguay from the Republic of the same name, to the east. All these rivers combine to enter the Plate Estuary, the only great estuarine inlet in the whole of South America, and a natural asset of prime importance to the country. To the south of the Plate River system lie the high plains of Patagonia, crossed by the Colorado, Negro and Chubut rivers. The western frontier of the Republic marches with Chile, and lies along the high Andean ridge, so that a strip of mountain country, from 50 to 100 miles wide, together with a belt of foothills, is included in Argentina. The only other mountains are the Sierra do Cordoba, a series of parallel chains, some 3,000 to 6,000 feet high, stretching from north to south through the province of Cordoba, some 300 miles east of the Andes proper.

The characteristic vegetation of the Argentine is the treeless grassland, on the level pampas, which is seen at its best in the province of Buenos Aires. It extends westward into La Pampa and Cordoba, where it is somewhat less luxuriant, and northwards through Santa Fé, Entre Rios, Corrientes and Misiones. In this direction, especially in the north of the Misiones Territory, the more abundant rainfall and greater heat lead to tree growth, and the grassland is replaced by evergreen forests, in which *yerba maté* grows. Towards the north-west, where it is even hotter, and the winter drought is very marked, the Gran Chaco type of vegetation replaces the pampa. It is what may be termed a wooded savannah: a mixture of campos as in Brazil, with palms, hard-wood forests (quebracho, algarroba, cedar) and swamp pastures. Towards the west and south of the pampas, where it is drier and cooler, the continuous carpet of grasses and herbs thins out to tufts of coarse grass, mingled with thorny shrubs, cactus and deep-rooted trees of small stature such as *mimosa* and *algarroba*. In many places the dry soil is impregnated with nitrates, and shallow brackish lagoons (*salinas*) occur. Yet wherever, owing to the impervious nature of the sub-soil, or owing to the proximity of a river, the surface soil is kept humid, the grasses and tree growth become more abundant. The slopes and foot-hills of the Andes are forested, especially in Patagonia, where there are extensive woods of *araucaria*, oak and pine. All the timber of Argentina, however, lies in the regions most remote from the Plate Estuary, the great centre of activity, and hence the forests are, in the main, untouched.

The disadvantage of lack of timber on the pampas is more than balanced



## Argentine Republic.

by the ease of railway construction, where obstacles were so few. Mountain and forest must be counted as among the most serious checks on enterprise elsewhere in Latin America.

**Human and Economic Conditions.**—As far as the European world is concerned, Argentina stands for two staples of almost universal consumption, *meat* and *wheat*. In this it resembles the Middle West of the United States and Canada, with this difference, that instead of being in the middle of a continent, it is on the sea-board, a very obvious advantage. The days are past when the semi-wild herds of cattle roamed the pampas, to be rounded up occasionally and slaughtered for their horns, hides and tallow. The land is now fenced, and a large proportion is under the plough, although, paradoxically, an increase in the weight and number of the herds has gone hand in hand with the restriction of natural pasturage. This is, of course, because fodder crops and grain are fed to the stock, and because the individual beasts are heavier owing to the crossing of the native breeds with pedigree stocks, largely from Britain. Thus, in addition to the wheat, maize and linseed shipped to Europe as such, large quantities arrive under the guise of beef or mutton.

The number of animals varies widely according to the season (e.g. if lambs and calves are reckoned), the state of the market, and the cost of foodstuffs, but a recent estimate gave about 45 million **sheep**, 27 million **cattle**, 9 million *horses*,  $4\frac{1}{2}$  million *goats* and 3 million *pigs*. The ratio of these numbers to the  $8\frac{1}{4}$  million head of population is worth noticing. The United Kingdom, with 47 million people, has about  $23\frac{1}{2}$  million sheep, 12 million head of cattle, and 3 million pigs.

The area now under cultivation is three times what it was in 1900, yet it is probably not a quarter of that which might be tilled, and experience has shown that even land pronounced by experts to be sterile has later proved richly productive. Moreover, although there are already important irrigation works in the country, as, for example, the colossal St. Roque dam, which imprisons enough water from the Sierra do Cordoba to fertilise 300,000 acres, there are abundant further opportunities in this direction.

At present the area ploughed is about 20 per cent. greater than that cultivated in the United Kingdom, and of the total, about one-third is under **wheat**. The acreage under **maize** is only about half as great, and in many districts this cereal is subsidiary to **alfalfa** (lucerne). The alfalfa is a very deep-rooted clover which can flourish in spite of prolonged drought. It grows so rapidly that stock can be pastured on it all the year round, or it can be cut for hay again and again in the same season. Grown in rotation it serves the useful function of restoring nitrogen to the soil. Next to wheat, maize and alfalfa, **linseed** (from flax) is important, closely followed by oats.

Comparing the stock and crops figures with those of the United States, there is a great discrepancy as regards pigs. The States have 75 millions of these animals, although the acreage under maize, the chief fattening crop, is only twelve times that in the Argentine. The number of pigs in the latter country has, however, doubled in the last decade, and the industry is doubtless one that will advance with the development of dairying, in which promising beginnings have been made in the more densely settled districts. The Danish, Swiss and Scandinavian elements in the population have the requisite traditions of care and gentleness towards animals which is necessary for rearing good milch cows, but this is only one industry among many which



**Argentine Republic.**

waits upon an increased supply of labour before its great potentialities can be realised. Already, however, the number of milch cows is estimated at 3 million (U.S.A. 23 million), and whereas in the pre-war period an annual import of 5 million kilos of cheese was necessary, the average export of 1917-18 reached nearly the same figures, and the import was negligible. The butter export, too, of 1918, was six times that of 1910.

The  $4\frac{1}{2}$  million goats by no means represent the total that might be profitably pastured in the arid lands, and on the Andes. It is very desirable, too, that the breed should be improved by the introduction of good milking and Angora strains.

The development of the grain and cattle industries has necessarily hinged upon the development of transport facilities, and apart from the Parana and Uruguay rivers, transport is necessarily by rail. The system focusses on Buenos Aires, the great Plate River port. If an arc of a circle be drawn with Buenos Aires as centre and a radius of 400 miles, its terminals being on the coast (R. Negro), and on the right (west) bank of the Parana respectively, it will be found to enclose the area characterised by the closest net-work of railways, the greatest density of population, and the greatest production of grain and stock. The units included within this radius are the Province of Buenos Aires, with the Federal District, the east of the territory of La Pampa, the province of Cordoba, and the southern part of Santa Fé.

Practically the whole of this area is a rich, level, grass-covered plain, with a rainfall of 20-30 in. Within it stands Rosario, the great grain port on the Parana, and Cordoba, these being the second and third cities in the Republic. It also includes La Plata and Santa Fé, the fifth and sixth cities in size, and Bahia Blanca, the great grain port of the more southerly cereal areas. Rosario is situated where the Parana alters its southern direction and turns ocean-ward. Hence it is at a point where traffic lines from the north-north-west and west must converge, in order to take the shortest route to the Atlantic.

The River Parana is practically unbridgeable, owing to its width, below the La Guayra falls in Paraguay, and hence the rich province of Entre Rios, which lies within the 400 mile radius, was until recently isolated from the main railway system and its development was retarded. The closeness of its railway network, and the density of its population, are hence less than its favourable position and climate would lead us to expect. The two rivers which embrace the province have formed the principal highways, and on their banks are the chief towns: Parana, the capital of Entre Rios (population 36,000), opposite Santa Fé, Uruguay on the river of that name (population 18,000), with Concordia (population 20,000), and Gualeguaychu (population 18,000), also on the same river. The establishment of a train ferry across the lower Parana at Ibicuy now gives the desired direct route to the Federal Capital. Ibicuy is also an important port for Entre Rios.

Although the whole of the area within 400 miles of Buenos Aires is mainly agricultural and stock-raising, the attention given to different crops and animals varies somewhat with the latitude. Broadly speaking, cattle and maize take a more prominent position in the hotter and wetter region north of the Plate Estuary, while wheat and sheep are better suited to the rather cooler and drier lands further south. The province of Buenos Aires has over 70 per cent. of the total sheep in the whole Republic, while in La Pampa these animals are twelve times as numerous as horned cattle. In

## Argentine Republic.

Santa Fé, on the other hand, there are two and a half times as many cattle as sheep.

Outside the 400 mile radius, there are two cities of great importance, Tucuman (population 91,000), the fourth in point of size in Argentina, and Mendoza (population 59,000), the seventh. Each is the capital of a province bearing the same name. Both cities stand at the foot of the Andes, both have direct railway routes to Buenos Aires, both are agricultural centres, and both depend for their prosperity upon a single staple. In the case of Tucuman, the more northerly, this is sugar : in the case of Mendoza, it is wine. The latitude of Tucuman is that of Southern Queensland, the latitude of Mendoza is that of Cape Town.

Tucuman has three-quarters of the **sugar** refineries of the Republic, and French colonists play an important part in the industry. The heavy rains fall for a short season in summer only, and irrigation is practised in order to extend the cultivable area. Maize, cotton, rice and fruit are secondary crops, and more attention is being paid to these now that the sugar industry is progressing elsewhere, notably in the sub-tropical provinces of Jujuy and Salta, and in Misiones, which is very well watered. These regions, although on trunk railways, are, however, even more remote from the Plate River than Tucuman, which itself is 700 miles from Buenos Aires. Hence, although a record harvest gives Argentina more sugar than she can consume, she is not likely to become a great exporter.

Round Mendoza, the great **wine** centre, irrigation is practised to a very great extent, the canals totalling 1,200 miles. The bulk of the grapes go to make *vin ordinaire*, since the growers cannot compete with France for the sale of superior bottled wines in Buenos Aires. Table grapes are also supplied. A secondary but very remunerative industry is orchard culture : apricots, nuts, olives, in fact all Mediterranean fruits, do well. Alfalfa is also grown, and cattle from the open ranges further east are sent to Mendoza, to be fattened for the Chilean market. The Trans-Andine railway passes through Mendoza, en route for the Uspallata Pass and Valparaiso. The mountain section has a different gauge from that on either side, involving a double handling of goods. A moderate output of petroleum in the province of Mendoza is of value owing to the general shortage of fuel in the Argentine. The neighbouring province of San Juan has a considerable share in the wine industry, and dries muscat grapes for raisins.

Mention has been made of the sugar cultivation in the northern sub-tropical provinces. The great success of numbers of small plantations has shown that the same areas might grow *cotton*, *tobacco* and *oranges* on a large scale, were transport facilities and labour supply improved. **Ground nuts** (for oil), another easily grown crop, also do well in Jujuy, Misiones and Corrientes, and are even more important further south, e.g. in the more densely populated province of Cordoba. At present the northern provinces and territories are important rather for their forest products than for their crops. Misiones produces **yerba maté**, while Formosa and Chaco, to the west of Paraguay, are exploited for **quebracho** wood. Not only are saw-mills numerous, turning out posts and sleepers, for which this hard wood is peculiarly suitable, but there are factories for the preparation of quebracho extract, sent abroad in very large quantities for tanning leather. Once the timber has been removed, good grass springs up, and cattle-rearing proves successful.



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At present much sub-tropical produce (e.g. tobacco, oranges, yerba maté), which might be produced in the Argentine, is imported from Paraguay. The trade goes through the river port of Corrientes (30,000 inhabitants), standing near the junction of the Paraguay and Parana rivers, or by the recently completed direct rail route from Asuncion to Buenos Aires, via the train ferry at Posadas.

If there is abundant opportunity for immigration and development in the north, distant 800 miles from the Metropolis, so is there also in the territories to the west and to the south of the circle of rich and accessible lands. Patagonia, which includes the Territories of Neuquen, Rio Negro, Chubut and Santa Cruz, looks stony and sterile enough, when approached from the east coast; along the foot-hills of the Andes, however, is a rich region with lakes and mountain streams, forests and luxuriant pastures, which has great possibilities both for stock raising and temperate agriculture. The Andean passes are much lower towards the south, and many of the settlers are Chilians, but besides these and Argentines there are numbers of colonists from Northern Europe. Railways through the mountains would put the regions in touch with the near-by Pacific, but at present single lines run to the Andes from the Atlantic: to Zapala in Neuquen from Bahia Blanca, and to the mountain lake Nahuel Huapi from Porto Villarino. It is some 70 miles south of this lake that an important discovery of good coal has been made, near Lake Epuyen.

In the extreme south of Patagonia and in Tierra del Fuego there is an important *sheep-rearing* region, the cold climate ensuring a good wool crop. The meat is dealt with at a freezing establishment at the little port of Gallegos.

*Meat packing* in the Argentine has been brought to a high pitch of perfection, and there are numbers of huge establishments on the banks of the Parana and Plate rivers, notably at Buenos Aires and La Plata. In Santa Fé and elsewhere there are also *saladeros* for preparing jerked beef, for which inferior cattle are used.

Another wide-spread industry is *flour milling*, steam-power mills being found in most large towns of the cereal regions. *Tanneries*, too, are very numerous, and the abundant supply of leather has led to a flourishing *boot and shoe* industry, which not only supplies the local demand, but is seeking outside markets. Minor industries include saw-mills, sugar refineries, tobacco and cigarette factories, breweries and distilleries, preparation of flour products (vermicelli, biscuits, etc.), brick, tile and cement works, in fact all the types of enterprises usually associated with agricultural areas. There are also railway workshops, and a few foundries.

Apart from boots and shoes, there is no large production of any class of manufactured goods, and all textiles, iron, steel and metal goods, paper, earthenware and glass-ware, must come from abroad.

Mining industries are of no great importance, although the Argentine slopes of the Andes are probably as rich as the Chilean in copper, gold, silver, tin, borates, etc. A few mines are worked in San Juan, Catamarca, and Rioja, where a 20-mile cableway brings copper ore from the mountains, but more capital, labour, and transport facilities are all needed. As elsewhere in the Andes, ores must often be transported in small quantities on the backs of llamas and mules, and fuel for smelting is absent.

The *coal* discovery, near Epuyen (Patagonia), has been mentioned.



## Argentine Republic.

Besides this the only considerable fuel supply is the *oil* region of Comodoro Rivadavia, where there is a steady and increasing output, amounting to 1½ million barrels in 1920, but the life of individual wells appears to be short.

The development of hydro-electric power from the Iguassu Falls on the Brazilian frontier is under consideration : an initial 150,000 H.P. would be supplied to Buenos Aires.

**Trade Relations.**—With a purchasing power of goods from abroad reaching £170 millions in 1920, Argentina is the most important South American market for manufactures. Textiles form the largest class, valued at £30–40 millions, and of these Great Britain supplies more than a quarter. Iron and steel and metal goods, including agricultural and other machinery, locomotives, motor cars, equipment for creameries, sugar centrals and the like, normally form a group of practically equal importance, and up to the outbreak of the European War, Great Britain filled about half of the orders. Imported foodstuffs and beverages are valued at £15 millions, and these include such items as coffee, cacao, rice, fish, oranges, yerba maté, choice European wines and spirits, preserves, sauces, canned goods and so forth. In normal times coal to the annual value of between £2 millions and £3 millions is imported from Great Britain, mainly for use on the railways, while there is an import of petroleum on the same scale from the United States. The latter country is, at present, the principal source of imports, owing to the falling off of exports from Germany and Belgium, and to the high price of goods (especially coal, iron and steel), available from Great Britain, but this proportion will probably not be maintained. Great Britain is the chief purchaser of Argentine grain, flour and meat, and other items averaging over £1 million each annually are wool, quebracho extract and linseed. The United States, with its great boot and shoe trade, makes a large demand for hides, leather and quebracho extract, and the abnormal conditions created by the war made that country also a purchaser of meat and bread-stuffs, but the total of goods going to the United States is normally far below that coming into the United Kingdom from the Argentine.

There are first-class port facilities at Buenos Aires, Bahia Blanca and Rosario, the latter 210 miles up the Parana and available for vessels drawing 21 ft. The railways are almost entirely under British management, and British capital is heavily invested in these and other public and private enterprises.

**General Information.**—The language spoken in Argentina is Spanish, although among the various colonists many different languages are used, and many foreign newspapers are published. There is no State religion, but Roman Catholicism is general. There is an ancient University at Cordoba, besides five others of modern foundation. Educational facilities are generally good, but over one-third of the population is illiterate. The official monetary unit is the *peso oro* (gold dollar) : 5·04 dollars equalling 1 pound sterling. The actual currency is chiefly paper, and equals 44 gold. The metric system of weights and measures is in use. The 'Banco de la Nación Argentina' is the principal Bank. The Anglo-South American Bank, the British Bank of South America, and the London and River Plate Bank have branches in all the leading cities. Among the numerous foreign banks in Buenos Aires, the Yokohama Specie Bank may be noticed. There is a British Consul-General at Buenos Aires, a consul at

## **Asia Minor with Constantinople and Kurdistan**

Rosario, and vice-consuls at Bahia Blanca and four other large towns. Two Commercial Secretaries are attached to the British Legation in Buenos Aires.

## **ARMENIA**

**Area and Population.**—The Republic of Armenia includes former Russian and Turkish territories, in which the Armenian race is the most important element of population, but no definite boundaries have yet been fixed. The bordering States include the Republics of Georgia and Azerbaijan, besides Persia and Turkey. The largest town is Erivan, with 90,000 inhabitants. Alexandropol has 50,000 : both these are in Russian Armenia, and are connected by rail with Tiflis and Tabriz.<sup>1</sup>

**Position and General Conditions.**—Armenia is a mountainous country lying in the east of Asia Minor, between latitudes 38° N. and 41° N., i.e. the latitude of Portugal. Owing to the great elevation (5,000 to 12,000 ft.) the winters are very severe, and for months the whole country lies under snow. The precipitation, whether as snow or rain, is heavy, and the country is intersected by numerous valleys, which contain the headwaters of the Euphrates and the Araxes. In these valleys the summer heat is very great, and *cereals* and *fruit*, including *vines*, ripen well. Mulberries are grown, and *silk* is obtained from the silkworms reared. Pastoral pursuits are very important, since the mountains offer abundant natural pasture, hence *cattle*, *sheep* and *goats* are reared in large numbers.

The mountains are rich in minerals, including **copper**, which await exploitation. There is also much **timber**. The natural ports of the region are Trebizond and Batum (the latter is in Georgia, and has been internationalised).

## **ASCENSION ISLAND**

**General Information.**—Ascension Island is under the control of the British Admiralty and is fortified. It has a garrison station at Georgetown, and is also a station of the Eastern Telegraph Company, having cable connection with England, Cape Town, St. Vincent (West Indies), Sierra Leone and Buenos Aires. The population is 250. The island covers 34 square miles and is of volcanic origin. It is healthy, having a mountain sanatorium for ships' crews. It is situated in the South Atlantic Ocean, in latitude 8° S., 700 miles N.W. of St. Helena.

## **ASHANTI**

See **Gold Coast**, p. 254.

## **ASIA MINOR WITH CONSTANTINOPLE AND KURDISTAN**

**Area and Population.**—The Turkish Empire now includes only Constantinople and district on the mainland of Europe, together with

<sup>1</sup> For Map see **Caucasia**.



## Asia Minor with Constantinople and Kurdistan.

Asia Minor. Within the latter area, however, the *vilayet* (Government) of Smyrna, with  $2\frac{1}{2}$  million people, is theoretically under Greek administration (see Greece), while the French have assumed authority in Cilicia, the rich district adjoining their mandatory territory in Syria. Italy has been granted a sphere of influence in the south, including the port of Adalia and the plain of Pamphylia. Only a rough estimate can be made of the area and population under effective Turkish control, but it is probably something under 200,000 square miles, supporting 9 to 10 million people. Of these about one million live in Constantinople, a cosmopolitan city, where little more than half the inhabitants are Mussulmans. Mohammedanism is the established State religion, and is the prevailing faith in the territories



FIG. 10.—ASIA MINOR.

now remaining under Turkish rule, although the minority of Christians and Jews are important as artisans and traders. The upper classes are usually well educated, the middle classes can read, write and keep accounts, while the peasantry are in the main quite illiterate. The seclusion of women means that female labour is not available. Smyrna, second in importance to Constantinople, is the chief town and port of Asia Minor, while Brussa (with 110,000 inhabitants), commanding the fertile plain bordering the Sea of Marmora, ranks third. Apart from these, there are numbers of small towns and ports of local importance only. The external trade of the former Turkish Empire worked out at about £3 per head of population, and was largely concentrated at Constantinople and Smyrna, with Trebizond (on the south shore of the Black Sea) as a minor centre. The imports were always greatly in excess of the exports, according to



## *Asia Minor with Constantinople and Kurdistan.*

the published figures, but the discrepancy is partly accounted for by understatement of values, and by the fact that much hoarded wealth among the upper classes was being dissipated. Constantinople, with a commanding position on the Bosphorus, has naturally a very considerable entrepôt trade, and is the resort of foreign merchants. Not only Asia Minor and the Balkan Peninsula, but also South Russia and Rumania are largely served from this centre. At present, however, trade is almost at a standstill.

### **Position, Climate and General Physical Conditions.**

—Asia Minor is a peninsula, lying to the south of the Black Sea and to the north of the Eastern Mediterranean, and stretching from the broken mountain country of Armenia in the east, to the Sea of Marmora and the island-studded Ægean Sea in the west. Broadly speaking, the country is an elevated plateau, some 3,000 ft. above sea level, bordered by yet loftier mountains, which outline the northern and southern coasts. Westwards these mountains run out in many spurs to the Ægean Sea, and in consequence, whereas the north and south coasts are smooth, the west coast is very broken, and here are found numberless valleys and plains of greater or less extent which are fertile and densely peopled. The natural outlook of the country is westward. The peninsula lies between latitudes 36° N. and 42° N.—i.e. in the warm temperate region, and the margins have the typical “Mediterranean” climate—hot and sunny in summer, mild and fairly wet in winter. Owing, however, to the disposition of the mountains, and the elevation of the interior, the latter is largely cut off from the rain-bearing winds, and suffers from drought, and from extremes of heat and cold. Hence, whereas valuable forests of oak and beech clothe the bordering mountains, the interior is a pastoral country, steppe-like in character, while in its centre there is a stretch of semi-desert, and a large saline lake. Thus cultivation is most important in the river valleys. The principal rivers are the Kizil Irmak and the Sakaria, both of which, though rising in the mountains, follow long and irregular courses across the plateau before reaching the Black Sea. The Sihun, a much smaller river, runs from the Anti-Taurus Mountains southward, past Adana, across the famous Cilician Plains. Of the west-flowing rivers the Meander, near the banks of which Aidin stands, is the most important.

**Human and Economic Conditions.**—The population of Asia Minor consists almost entirely of peasant farmers, who in many districts cultivate little produce beyond their own needs, and whose methods are primitive in the extreme. In the west and south, however, where the villages are less isolated, and where the best conditions of climate are found, more modern methods are followed, and in such districts there is a surplus of production for export. The principal cereal is **barley**, which does well not only in the rich marginal valleys and plains, but also in the dry plateau region: it is an article of export, much coming to England for malting. **Wheat** is likewise important, although it is mainly consumed within the country, and **maize** is also widely grown. Generally speaking, under favourable political and social conditions, the region might be an important source of cereals: lack of transport facilities, however, determines that the greatest care is bestowed on products that have a high value relative to their bulk. Such, for example, is **tobacco**, much of which is of high quality,

## Asia Minor with Constantinople and Kurdistan.

and is exported. The most important yield is from Samsun and Baffra and the neighbouring districts along the Black Sea coast. Here the pre-war yield was 50–60 million lb., and the yield in 1920 13 million lb. Medium grades, largely manufactured locally, are grown in the Brussa, Ismid and Aidin districts. **Cotton** is another valuable crop, coming especially from the Aidin district and from Cilicia, while **silk** is obtained in large quantities from the valleys and plains round about Brussa. **Opium** is another product suited to local conditions, while **liquorice** (sold to the United States for sweetening tobacco) grows wild in the Meander and other valleys. The Mediterranean type of climate is here, as elsewhere, associated with valuable **fruit** crops, including the vine (for **raisins**), **figs**, olives, and many stone fruits. The forests might be a great source of wealth, since they include such valuable timber trees as the oak, and at greater elevations the pine, but both lack of transport facilities and lack of labour are immediate difficulties. The **valonia oak** is, however, cultivated and exploited in the west, since the acorn-cups yield a valuable tanning material which is sent to England and western Europe.

Animal industries become important on the dry plateau, where **sheep** and **goats**, yielding wool and hair for export or for manufacture, are reared in large numbers. Camels, mules and donkeys for transport are also bred in the same region.

The *mineral* wealth of Asia Minor is held to be considerable—e.g. near Diarbekr is a **copper** mine reputed very rich, but transport and labour difficulties hinder profitable exploitation, nor are the political conditions such as to attract foreign capital to the country. **Coal** is, however, actively worked in the Heraclea mines, and is exported from the small ports of Tunguldak and Heraclea, on the Black Sea. The output is about half a million tons annually. There is also a fair supply of lignite on the western margins of the plateau. **Emery** comes mainly from the Government of Aidin, while **meerschaum** from the plateau east of Brussa is almost a Turkish monopoly. **Chromium** is very widely distributed, and is worked in the Governments of Brussa and Aidin. Apart from coal, however, the value of the output of the various minerals in no case reaches £100,000.

The manufactures of Asia Minor are unimportant, with the exception of **carpet**-weaving, and this is largely centred in Smyrna and district. There is a small silk industry at Brussa, and a small cotton spinning and weaving industry at Adana and Tarsus in the Cilician Plain.

**Trade Relations.**—The products of Asia Minor, including barley, silk, tobacco, fruit, cotton, liquorice, Oriental carpets, and minerals, are all in great demand in the British Isles and western Europe, while certain among them, including tobacco and liquorice, are also bought by America. Cotton goods form the leading item of return trade, and these are normally largely supplied by Britain, while woollen goods and mixed wool and cotton also find a market, since European dress is very general in the towns. Practically all the machinery and the farming implements used in the better developed regions are imported, and domestic hardware, glassware, earthenware, enamel-ware, etc., all find a market. Sugar and coffee are the chief food-stuffs imported, while petroleum is readily obtained from Russia. Germany and Austria are well placed for direct trade by rail with Constantinople, while Italy and France, with convenient Mediterranean ports, are in a favourable position for seaborne trade with Smyrna and



**Australia.**

Constantinople. In 1920 Great Britain sent goods to the value of £31 millions to Turkey (including Smyrna), since the markets had been starved during the war years. The return trade was under £13 millions. Business conditions in 1921 were in a state of chaos. The Asia Minor railways converge on Smyrna and on Scutari, opposite Constantinople. From Smyrna a line runs northward to the little port of Panderna, on the Sea of Marmora; a second runs eastward across the plateau, thence through Adana on the Cilician Plain, where it links with the ports of Mersina and Alexandretta, and with Aleppo on the Syrian system, and from the latter point runs across north Arabia to Mesopotamia (the unfinished Bagdad railway). A third line from Smyrna taps the Meander valley. From Scutari a line runs through Ismid, up the Sakaria valley to Angora on the plateau, and from Eski-Shehr a branch runs southward to the main Smyrna-Konia-Adana line. The Italians will probably run a railway inland from Adalia, but at present (1922) they are not in effective occupation. Adalia has, however, done a largely increased trade owing to fighting between the Turks and Greeks in Smyrna.

**General Information.**—A gold standard has been adopted in Turkey. The unit of currency in Constantinople and Asia Minor is the *piastre*, of which 100 piastres equal one pound Turkish, and £T11 = £10 sterling approximately. At present the Imperial Ottoman Bank issues notes, but after 1925 this privilege will be limited to the new Ottoman National Credit Bank. The metric system of weights and measures is nominally in use, but actually the old customary units are employed, of which the most important are the *oke* of 2·8 lb., and the *quintal* or *cantar* (44 okes) of 125 lb. avoirdupois. The chief foreign banking establishments in Constantinople are The Anglo-Levantine Banking Company, the Crédit Lyonnais, and the Bank of Athens, of which the two last have offices also in Smyrna. The language spoken everywhere is Turkish. Mails take four days to reach Constantinople, at which city there is a Consul-General, as also at Smyrna. There is also a British Commercial Secretary at Constantinople.

**ASSAM**

See **India**, p. 280.

**AUSTRALIA**

**Area and Population.**—The Commonwealth of Australia includes the States of New South Wales, Tasmania, Western Australia, South Australia, Victoria and Queensland, each with separate Parliaments, together with the Northern Territory and the Federal Capital Territory, which are under the direct jurisdiction of the Commonwealth. The total area—nearly 3 million square miles—is approximately that of the United States, yet in Australia there are only  $5\frac{1}{4}$  million people, as against 107 millions in the States. It has been estimated, however, that 44 per cent. of the island continent is too arid to support a settled population, while 17 per cent., being tropical, is suited to close settlement by coloured or mixed



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racess only. A further 28 per cent. can support but a sparse pastoral population, leaving only 11 per cent. suitable for close settlement as understood in the Old World. Even so, however, this 11 per cent. comprises an area nearly ten times that of Ireland, a country where at one time 8 millions lived on the produce of the soil, so that the present population of Australia is a mere fraction of the numbers it might support, leaving aside the undoubted



FIG. 11.—AUSTRALIA, NATURAL DIVISIONS.

future expansion of manufacturing industries and consequently of urban population in the Commonwealth.

The greater part of the population is settled on the south-east margin of the continent, and no less than  $2\frac{1}{2}$  million people out of the total  $5\frac{1}{2}$  million live in the six capital cities or their suburbs. The figures (including suburbs) at the end of 1919 were as follows: Sydney, 829,000; Melbourne, 743,000; Adelaide, 257,000; Brisbane, 189,504; Perth, 140,000; Hobart, 50,000. Of these six cities, Perth is exceptional, as it is in the south-west, and not in the favoured south-east region, but the south-west corner of the continent, although isolated, has also great climate advantages. The only other

**Australia.**

town in the Commonwealth with over 50,000 inhabitants is Newcastle, a port on the New South Wales coal-field.

The average foreign trade for the three years ending June 30, 1920, was £202 millions, or £40 per head of population. Of this 57½ per cent. represented exports as against 42½ per cent. imports. There is, besides, a very large inter-State trade, since the variety of climates which Australia possesses allows of a great range of home-grown food products. Heavy buying by Australian merchants on the one hand, coupled with the slump in wool and metals on the other, led to an adverse balance in the year 1920-21 of £30 millions on a total trade of £295 millions.

**Position and Climate.**—Australia proper stretches from latitude 10° S. (corresponding to southern India in the opposite hemisphere) to latitude 39° S., corresponding to Lisbon; the island State of Tasmania extends to latitude 43½° S., i.e. as far from the South Pole as the South of France is from the North Pole. Australia looks northwards towards the East Indies and Papua, southwards to the Southern Ocean and the Antarctic regions beyond, eastward to the Pacific with Chile on the opposite shore, and westward to the Indian Ocean and South Africa.

Although the continent is remarkably compact and free from any notable diversities of elevation, yet its vast extent results in a great variety of climates. Broadly speaking, tropical Australia, like India, has a monsoon climate, with a rainy summer followed by a long dry season, and high temperatures all the year. The Australian monsoon occurs during the Indian dry season, and vice versa. The rainfall is heavy along a narrow coastal belt, and especially along the east coast of tropical Queensland, where the winds strike against the highlands; it rapidly lessens towards the interior. Besides Queensland, the Northern Territory and the north of Western Australia have this type of climate. As in India, the monsoon may fail, and disastrous drought result.

In the southern regions of Australia, and as far east as Melbourne, the rainfall seasons are the opposite to those of the north, i.e. there are warm rainy winters, and dry hot summers—the climate of the lands round the Mediterranean Sea. Here, too, there is a rapid falling off in rainfall towards the interior. The southern part of Western Australia and of South Australia, together with Western Victoria, have this pleasant type of climate. The rainfall, though moderate or even scanty, has the advantage of being reliable, and droughts are rare. The eastern and south-eastern extra-tropical region, comprising Southern Queensland, New South Wales and Eastern Victoria, has moderate rain all the year round, while the summers are hot and the winters warm or cool according to the locality. North of Sydney, the rains may fail, except along the highland belt, and throughout this region also the rainfall diminishes towards the interior. Consequently there is a fourth climate region, the arid interior of Australia, with a very low and unreliable rainfall, great summer heat, and sharp night frosts in winter. It extends right down to the west coast, separating the winter rainfall and monsoon regions of Western Australia. Finally a fifth type of climate is found in Tasmania, not unlike that of Britain, rainy—especially in the west—cool in summer, and mild in winter.

**General Physical Conditions.**—The western half of Australia is a low tableland, from the margins of which short rivers of no great

## Australia.

importance flow northwards and westwards. The best known is the Swan River, on which Perth stands. Eastern and south-eastern Australia comprises a belt of rolling highlands, rising somewhat steeply from the narrow coastal plain which separates them from the sea, and gradually sinking towards the interior of the continent. Viewed from the seaward side the edge of the highlands has the appearance of a mountain-range, hence the names Grampians, Australian Alps, Blue Mountains, applied to successive sections in Victoria and New South Wales. Short rivers, such as the Hunter behind Newcastle and the Fitzroy behind Rockhampton, drain the highlands to the east and south, while longer rivers drain them westwards to the great interior lowlands which separate the highlands from the tableland.

The most important section of the lowlands is the Murray-Darling basin, drained by the rivers bearing those names, which form the only important river-system in the continent. The Darling, although the longer stream, is the less valuable, for it flows for a long distance through a region of low and uncertain rainfall, and hence is often useless either for navigation or for irrigation. The Murray drains a region of more regular rainfall, and is fed besides by perennial streams from the snowy summits of the Australian Alps, hence it has a greater and more uniform volume of water. The Lachlan and Murrumbidgee, draining the southern interior of New South Wales, join the right bank of the Murray, and the united waters flow westwards and enter South Australia, where they are turned abruptly south by the barrier of the Mount Lofty Range. The outlet of the system, Lake Alexandra, is a large shallow lagoon, separated from deep water by shifting sandbanks.

The Mount Lofty Range, lying athwart the westerly winds, has the useful effect of condensing extra rainfall, while parallel to it are two deep trough-like inlets, the Gulf of S. Vincent and Spencer Gulf, which form a most valuable addition to the length of seaboard of South Australia.

To the north of the Darling River the drainage from the inner slopes of the Queensland highlands is carried into the Lake Eyre basin, which has no outlet to the sea. The chief rivers, the Barcoo and Diamantina, are often reduced in their lower courses to chains of water-holes, for the Lake Eyre depression is the driest part of the continent, with less than 5 in. rainfall. Owing, however, to the conformation of the rocks, the region draining to Lake Eyre, and the upper Darling basin, have abundant underground water which can be tapped by artesian bores.

The *vegetation* of Australia determined its early development as a pastoral country, for there is an abundance of natural grasslands of different types, and true forests are limited to a few exceptionally well-watered areas. There are tropical jungles, with palms and creepers, in the extreme north and north-east, and eucalyptus forests with tree-ferns in the south-east, but speaking generally, there is a broad belt of very open woodland, with grasses instead of undershrubs, extending round the whole of the north-west, north and east of the continent. Within the tropics this belt is of a savannah character, comparable to the African grasslands, while in the temperate zone various gum-trees (eucalypts) are characteristic. With increasing distance from the sea, and consequent lessening rainfall, the timber thins out, and trees are usually seen only along the river banks. In still drier regions the fleshy-leaved salt bush and blue bush occur, which are greedily eaten by sheep, while in the arid interior proper there are ex-



## Australia.

panses of pebbles and sand, varied by thickets of mulga (acacia) scrub, and tufts of sword-like spinifex and porcupine grass. The south and south-west regions with their winter rains have many evergreen trees and shrubs, as for instance the mallee scrub, of low-growing deep-rooted eucalypts, but here, too, the ground is open and suited for pasturage, or easily cleared for agriculture. In the extreme south-west corner, where over a small area the rainfall exceeds 40 in., forests of the *jarrah* and *karri* woods occur which



FIG. 12.—SOUTH EAST AUSTRALIA.

yield a very hard and durable timber. Tasmania also has considerable forests in the wetter west, mainly of eucalyptus, oak, beech and other hardwoods.

**Human and Economic Conditions.**—Stock-raising, and the various derived industries and products, take the first place in the economy of Australia, yielding £47½ millions (over 50 per cent.) of the total £95 millions of exported produce in 1916–17. The mines and the arable land each account for about half of the remainder

## Australia.

The number of animals fluctuates between very wide limits, the flocks and herds rapidly increasing during good rainfall years, when pasturage is abundant, and falling by millions during a drought. Australia disputes with Argentina the position of premier **sheep** country, the flocks numbering between 80 and 90 millions, although they rose in 1890 to 97 millions. New South Wales, with flocks between 30 and 40 millions, is the leading sheep-breeding State, for it has the greatest stretch of the rolling temperate grasslands which form ideal pastures. The merino sheep, bred for wool, predominates in the interior, for a dry climate suits it best, while heavier cross-bred sheep, yielding larger carcasses, are more important towards the wetter coastal belt. Southern (temperate) Queensland, with similar zones of sheep country, carries 15-20 millions, while Victoria has the third place with 12 millions. South Australia and West Australia have about 5 millions apiece, and Tasmania 2 millions.

The number of sheep and lambs slaughtered annually varies from 8 to 14 millions, and in this respect Victoria, with its moister and cooler pastures, supplies more carcasses than Queensland, although New South Wales still takes the first place. Normally the meat trade is worth about £7 millions. But the value of the wool is much greater. This may be estimated at 700 million lb., with a value of over £40 millions. About 25 per cent. of the wool is scoured and washed before export, effecting a great saving in weight and bulk, the rest is sent abroad in the grease. *Tallow* is exported to the value of over £1 million.

The **cattle** in the Commonwealth number from 10 to 12 millions, nearly half of which are in Queensland. The tropical savannahs of this State are admirably suited to the rearing of heavy beef-cattle, and at Rockhampton and Townsville on the coast there are important meat-preserving works. The savannah belt extends through the Northern Territory and the north of Western Australia, where cattle are likewise important, and a large meat-packing works has been erected at Port Darwin. Enormous areas of cattle-country, however, are still unoccupied.

*Dairy*-herds become more important in the temperate south-east, especially on the coast plains of New South Wales (e.g. the Illawarra district) and of Victoria (e.g. in Gippsland). The cooler and wetter climate gives the rich pasturage necessary, and suits the production of butter.

One and a half to two million beasts are slaughtered annually, the average value of chilled beef exported being £3½ millions. The production of *butter* and *cheese* fluctuates considerably according to the season, but there is a general upward trend over an average of years. The figures for 1918-19 gave 182 million lb. butter, of which 140 million lb. were consumed locally, and 25½ million lb. cheese, of which 10 millions remained for export. The value of the export trade in the same year was £5¼ millions. There is also a surplus of condensed and evaporated *milk* to send abroad, Victoria taking the lead in this industry with 73 per cent. of the output.

The number of **pigs** bred varies very greatly, but may be put down at about 1 million. The bacon, ham and lard produced suffice for local use, but the surplus for export is small. The ratio of pigs to population, namely 1 to 5, may be compared to that in Denmark, an exporting country, where it is 1 to 3, while in the United States it is 1 to 1½.

The dry pastures on which the merino sheep is bred are equally suited to the *angora goat*, and a small industry capable of great extension has begun.



## Australia.

*Agriculture* has steadily increased in importance during the twentieth century, the cultivated area per head of population being 3·4 acres in 1916-17, as against 2·2 acres in 1901-2. The total in that year was 16·8 million acres of arable land, to which may be added 3·7 million under permanent sown grasses, mainly used for dairying. In the British Isles the arable land covers 25·2 million acres, and the population is 47 millions. Up to the middle of 1920, the cropped area steadily fell off, until there was a decrease of 3 million acres, chiefly represented by wheat lands. The 1920-21 season saw this vast area under the plough once more, and it is hoped that the set-back was merely temporary.

Nearly 60 per cent. of the ploughed land is devoted to **wheat**, to which the moderate rainfall is specially suited. The southern areas of Western Australia and South Australia, with the west of Victoria, have the typical "wheat climate" of Spain, Italy and California, namely winter and spring rains and summer drought. The coastal belts and seaward slopes of the highlands of New South Wales and Victoria are too wet for wheat, but on the lee-side of the highlands, where the rainfall is below 30 in., there is a crescent-shaped "wheat belt" some hundred miles wide and 700 miles long,

running through the two temperate States. Behind the Australian Alps the belt extends down into the Riverina, the famous sheep-breeding plains between the Murrumbidgee and Murray Rivers, and it is here that irrigation and "dry-farming" will greatly increase the profitable acreage. Farther north the belt is confined to the more elevated ground, including the Liverpool Plains. The yield in 1916 was 152½ million bushels—about a quarter that of the United States—but the fluctuations due to drought and poor har-

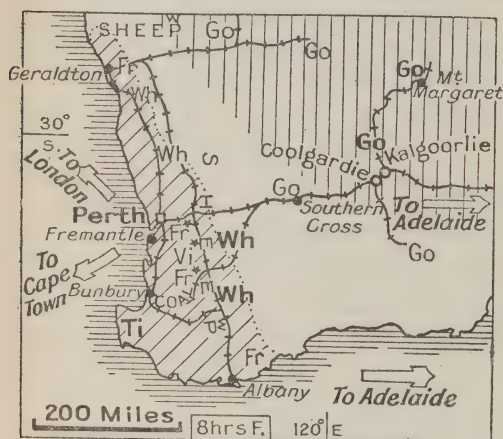


FIG. 13.—SOUTH WEST AUSTRALIA.

vests are great, the average for ten years being only 95 million bushels, and the value of the proportion exported £9 millions. The 1920-21 crop is estimated at 146 million bushels, an increase of no less than 100 million bushels on the previous season.

Next to wheat, *hay* and green fodder occupy the largest acreage (about 18 per cent.), followed by *oats*. In Tasmania, owing to the wetter, cooler climate, these two crops rank before wheat, but in tropical Queensland the second place is held by *maize*, the typical cereal of the savannah lands. At present the acreage under maize is very small, only 360,000 acres, and the yield of 8½ million bushels does not suffice for local needs. The *hay* is not of meadow grasses, but of wheat and oats, which are cut green or left to ripen according to the season and the fluctuations of the market. There is also a considerable quantity of lucerne hay in Queensland and in New South Wales,



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but this crop has not received the attention given to it in other stock-breeding countries.

Australia is now able to grow sufficient **cane-sugar** for her domestic needs (including jam-making), about 90 per cent. of the acreage being on the east coast of Queensland, and the rest just over the border in New South Wales. A heavy rainfall and prolonged hot season are necessary, and Mackay, Bundaberg and Cairns are the chief centres. The maximum production of over  $\frac{1}{4}$  million tons was obtained in 1917, and the industry is notable in that coloured labour is prohibited. *Beet-sugar* up to 15,000 tons in a single year is produced in Victoria.

The climate and soil conditions found favourable to cane-sugar are also suited to the **cotton** plant, but it is considered that the absence of coloured labour precludes the establishment of this industry on a commercial scale until machine-picking is introduced. Recently, however, high-grade cotton has been grown on irrigated lands by white labour with marked success in the United States, and in 1921 nearly 2,000 bales were harvested in Queensland. Mediterranean (Italian and Maltese) labour may solve the problem.

The **vine** is grown in the south and south-east of Australia, particularly in South Australia and the neighbouring parts of Victoria, where the "Mediterranean" climate exactly suits its requirements. In Western Australia, with a similar climate, there is room for extension of the vineyards. The production of wine has not made the progress expected, for the Australians themselves, being of British descent, are not habitual wine drinkers, and the difficulty of competing with established brands abroad is great. The *raisin* and *currant* industry has made much more rapid strides, and there is normally a surplus for export. Table grapes are grown for the home market.

Of other **fruits**, the banana and pineapple are notable in tropical Queensland, citrus fruits in subtropical New South Wales, and apples in temperate Tasmania, while apricots, peaches, figs, almonds, olives come from the regions with the Mediterranean type of climate. In addition the stone, pome and soft fruits of Britain are grown in the well-watered parts of New South Wales, Victoria and Tasmania, and there has grown up a large *jam*-making industry.

The increasing use of fertilizers (manufactured locally from bones and from rock phosphates imported from the Pacific) points to the more thorough methods of soil cultivation now prevailing, and a further point of interest is the use of *ensilage*. The green fodder cut during wet seasons and stored in the silo is excellent both for dairy-cattle and lambs, and can be fed to stock during seasons of drought. Government assistance and advice is given to farmers proposing to erect silos, which have now been built on 500 holdings.

The **timber** resources of the Commonwealth are conserved by the State Forestry Departments. They consist chiefly of hardwoods and cabinet woods, which are exploited in Queensland, Tasmania and West Australia. The export, however, averages barely half a million sterling, whereas imported Scandinavian soft woods cost nearly £2 millions.

The **mining** industries of Australia are very important. The early discoveries of gold in Victoria—whence came the "Welcome Stranger" nugget weighing 2,284 oz.—played their part in attracting the population which stayed to develop the land, and although the output of gold has decreased, that of other metals has become more valuable.

The average production of **gold** is about £10 millions, and of this over

## Australia.

half comes from Western Australia, where the mines are on the arid interior tableland. To name them in their present order of importance, the Coolgardie field lies 300 miles east of Perth, Mount Margaret lies to the north of Coolgardie, and the Yilgarn field to the west, while the Murchison field is to the west of Mount Margaret. But the auriferous reefs are widely spread, and new discoveries are always probable.

Victoria is the second gold State, with a steady yield from the quartz reef of Bendigo and the alluvial field of Poseidon farther west, scene of a rush in 1907. These fields occur in the old rocks building the eastern highlands, which sweep right round to Cape York, and hence all three eastern States are metalliferous. Queensland obtains gold from the copper and other ores from Mount Morgan and from the Charters Towers and Gympie fields. New South Wales has a smaller production, the premier mine being at Mount Boppy in the Cobar district, where the old rocks crop out at a distance from the highlands. In Tasmania the bulk of the gold is produced from the copper region on the West Coast, and from the Beaconsfield mine in the north.

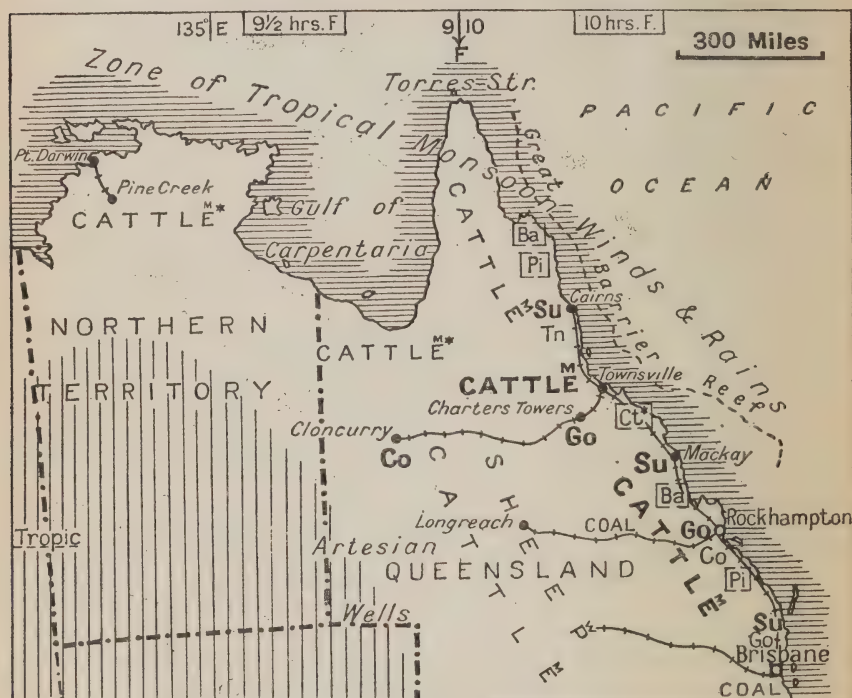


FIG. 14.—NORTH EAST AUSTRALIA.

The **copper** produced in the Commonwealth in 1918 was valued at over £4½ millions, and half of the total came from Queensland, in which State the rich Cloncurry district occurs. Mount Morgan behind Rockhampton

## Australia.

is also highly productive. Tasmania has the second greatest output of copper, chiefly from the West Coast (Mount Lyell Mining Co.), and South Australia, once the premier State, ranks third. The mines occur near the shores of the Spencer Gulf (Moonta, Wallaroo), and in general in the block of rocks that builds the Mount Lofty and Flinders Ranges. New South Wales has the Cobar mines, from which ores are taken to be smelted at Lithgow on the coalfield.

**Silver** is produced to about the same value as copper, the leading districts being Broken Hill in New South Wales, and Zeehan in Western Tasmania. The silver-lead of Broken Hill is taken to Port Pirie, S.A., which has large smelting works. **Tin** is also very important in Tasmania, which is responsible for over one-third of the output, averaging £1 million. The Tasmanian highlands are part of the same geological formation as those of the mainland, and tin is also mined at Herberton in Queensland and behind the New England Range in New South Wales.

**Zinc** is produced in quantity only at the famous Broken Hill mining district of New South Wales, where the sulphide ores are rich in zinc blende. Production dates only from 1909, but the average output has been 300,000 tons annually, worth at present high prices over £2½ millions. The mines are especially valuable owing to the great deficiency of zinc within the boundaries of the British Empire. Canada in 1918 produced 11,500 tons only.

**Iron** ore occurs very widely, and the Australian iron and steel industry has become firmly established in recent years. The ores from the mountain known as Iron Knob, about 48 miles from the north-west shore of Spencer Gulf, are shipped to the Newcastle coal-field for smelting, and local New South Wales ores are smelted at Lithgow, on the inland margin of the same field.

The output of pig-iron in 1920–21 was nearly ¼ million tons, and of steel ingots over 200,000 tons. Tar and ammonium sulphate are important by-products of the coke-ovens.

**Coal** is abundant in Australia, and the output had reached 12½ million tons annually before the War. The bulk of this comes from the Sydney coal basin, which underlies the harbour, and has outcrops in the north at Newcastle, in the west at Lithgow, and in the south of Bulli. Next in value are the Ipswich mines near Brisbane, and the State Coal Mine in southern Gippsland. Western Australia has a fairly important mine at Collie behind the port of Bunbury, and there is also coal-mining at Clermont in the hinterland of Rockhampton, and in north-eastern Tasmania. South Australia alone is without useful mines, but all those named are in close relation to leading seaports. Hence Australia is able to supply practically the whole of her domestic requirements and has normally 5 or 6 million tons for export, consigned chiefly to New Zealand, and, in small quantities, to the islands and seaboard of the Pacific and Indian Oceans.

**Oil-shale** fields of very great promise have been located in north-west Tasmania, and development has begun. In the same State there is a steady output of the valuable mineral *osmiridium* at Mount Stewart.

The location of the various metalliferous mines determined in the main the direction of early *railroad* construction in the Commonwealth, since it was necessary to bring down the ores to the coast and carry up all necessaries of life to the mining communities. Hence a series of isolated lines was built, which ran direct from the coast to some point in the interior. The next step



## Australia.

was the gradual linking up of the State capitals, which is now complete, so that it is possible to travel from Brisbane to Perth, via Sydney, Melbourne and Adelaide. From Brisbane a coast railway runs northward through Maryborough and Bundaberg to Rockhampton, and from Perth there is an extension to Geraldton. The lines from Mackay, Townsville and Cairns in tropical Queensland are still isolated, as is that from Port Darwin to Katherine, for the trans-continental railway scheme which would link this line with Adelaide via Oodnadatta is in abeyance. In New South Wales and Victoria there is now a fairly complete network of lines through the chief agricultural and dairying districts, a fact that has had much to do with the development and closer settlement of the land. A serious transport difficulty in Australia is the lack of uniformity of gauge, due to the haphazard fashion in which the railway system grew up; this involves costly delay and double handling at the inter-State boundaries. The difficulty will probably shortly be solved as far as the main lines are concerned by the laying of a third rail.

With the exception of Tasmania, where it is unnecessary, all the States give careful attention to *irrigation*, both with a view to extending the cul-

tivable area and also because irrigated land demands intensive culture, and thus leads to the closer settlement recognized as so desirable. The oldest irrigation colonies are Mildura in Victoria, and Renmark in South Australia, both on the left bank of the lower Murray, from which they draw their water-supply. The colonists grow Mediterranean fruits, and especially the vine, with marked success. The largest system in Victoria is the Goulburn scheme, which supplies water for intensive culture, domestic use and stock, to an area of 850,000 acres, lying between the highlands and the south bank of the

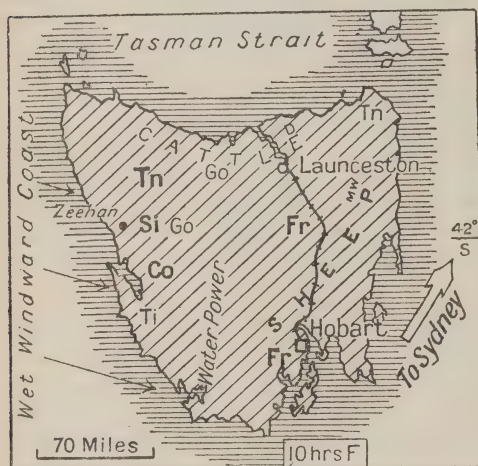


FIG. 15.—TASMANIA.

Murray River. The Goulburn is a tributary of the Murray, joining it at Echuca, the head of navigation. Farther west, between the Grampians and the Murray, in a yet drier area, the Wimmera-Mallee scheme provides water for domestic and stock purposes over 850 square miles.

The most important scheme in New South Wales is the damming of the Murrumbidgee River at Burrinjuck. The upper waters of the river and its tributaries are impounded into a great lake, and it is estimated that the irrigated land, when fully settled, will support 100,000 people. Fruit-farming and dairying are highly successful in the towns and villages already occupied.

Many smaller schemes are in operation in different parts of the Commonwealth, while in Queensland, and to a less extent in New South Wales,

## Australia.

artesian wells play an important part in watering stock. In Queensland, however, the question of close settlement is bound up with the White Australia policy. Similar regions elsewhere support dense communities of black, yellow or brown people, and even those of the white Mediterranean race, although often with coloured admixture. Whether white men can effectively occupy the land remains to be seen. Certainly, the sugar planters are successful, and Queensland is free from the more virulent tropical diseases. On the other hand, it may be argued that the uniformity of the Australian population as regards birth and traditions, valuable though it may be from an economic standpoint, has yet its economic drawbacks. A mixed population possesses a variety of tastes and aptitudes that lead to a greater diversity of crops and agricultural methods, thus ensuring that districts with varying soils and climates will be used to the best advantage. This is clearly seen in the cases of the United States and the Argentine Republic.

Tasmania, with its heavy rainfall, is the only part of the Commonwealth in which *water-power* is abundant. The rivers rise in mountain lakes, are swift, and of uniform volume. The chief scheme is that operated by the State, which supplies power derived from the Great Lake to Hobart and its suburbs. Zinc concentrates from Broken Hill are here extracted on a large scale; there is an important calcium-carbide industry, and further electro-metallurgic industries, e.g. the manufacture of white lead, will be established. The brown coal of Victoria is to be used as a source of electrical energy for the Melbourne district (transmission line 82 miles), for the high cost and relative scarcity of labour make it essential to substitute power for manual work wherever possible. The necessary works at Morwell are making rapid progress.

The *industries* of the Commonwealth are in the main concerned with working up the primary products—the most numerous classes of establishments being tanneries, fell-mongering and wool-scouring factories, butter, cheese and condensed-milk factories, meat-packing and freezing works, smelting works, sugar mills, flour mills, and so on.

There is, however, an increasing output of manufactured articles, of which agricultural implements form an important class. Large scale engineering is firmly established, every part, for example, of a locomotive being procurable within the country, while with the exception of a proportion of the steel plates, Australian manufacturers are supplying the whole of the material required for carrying out the Government shipbuilding programme. The complaint is made, however, that local labour laws make competition with Belgian and British manufacturers of similar goods very difficult. There is also an important boot and shoe industry, with an output of £5 millions, and a well-established woollen industry, the mills turning out good quality tweeds, flannels and blankets, although in quantities far below even local requirements. Jam, biscuits, soap, and ready-made clothing are other commodities turned out on a large scale. The fact that Tasmania has hydro-electric power has decided an important British firm to set up a worsted factory in that State, and generally speaking, there is a tendency for British manufacturers to interest themselves in the development of Australian industry.

The output of the factories of all classes is over £200 millions, of which New South Wales, with its coal-field, produced 41 per cent.; Victoria, with its



**Australia.**

closely settled population, 30 per cent. ; and Queensland (chiefly round Brisbane and Rockhampton) 15 per cent. The number of employees was 330,000, or 6·3 per cent. of the total population, and it may be noted that in Canada the corresponding figure is 7·7 per cent.

**Trade Relations.**—The dislocation due to the War reduced the imports from the United Kingdom from 60 per cent. to 50 per cent., while those from the United States rose from 11 per cent. to 21 per cent. Germany's pre-war imports into Australia were valued at over £4½ millions, and their disappearance was balanced by a very large increase in goods from Japan, and also from Norway and Sweden. India supplies 5 per cent. of the import, chiefly sacks, bags and hessians for baling and packing purposes. Japan in 1916–17 came next to India, sending heavy consignments of cotton and silk goods, while other considerable items were tea from Ceylon, sugar from Java, and paper from Norway and Sweden. Canada sent manufactured articles—paper, agricultural and other machinery, motor-cars and parts—besides fish, to the value of £1½ millions.

The exports of Australia are normally consigned to the United Kingdom in the proportion of 45 per cent., wool being the chief item, followed by meat and butter, copper and lead. The war years increased the trade, owing to the great demand for these commodities. Usually a proportion of the wool is redistributed from London to the continent, but direct buying, e.g. by France and Italy, is on the increase. Japan has also recently made large purchases of wool, mainly for clothing troops. The United States, producing the same classes of commodities as Australia, plays a relatively unimportant part in the export trade, save in respect of an increased demand for wool. A feature of note during recent years has been the development of Australia's trade with what may be termed her natural markets—the tropical countries bordering the Pacific and Indian Oceans—in which there is a demand for the food-stuffs of the temperate zone and for manufactured articles. The value of this trade has risen during the twentieth century from £1 million to £6 millions.

**General Information.**—Money, weights and measures are as in Great Britain. Of the twenty-four banks trading in the Commonwealth, four have their head offices in London, viz., the Bank of Australia ; the Union Bank of Australia, Ltd. ; the English, Scottish and Australian Bank, Ltd. ; and the London Bank of Australia, Ltd. There is also a French and a Japanese Bank. Commonwealth treasury notes are in circulation.

Mails are conveyed by subsidized steamers via the Suez Canal, and are now landed at Fremantle, Western Australia, and conveyed by land to the eastern States, the time taken from London being about twenty-seven days. There are also services by way of New Zealand, via San Francisco and Vancouver, taking about ten days longer. A fleet of over 150 vessels is engaged in coastwise trade, and the Government has purchased a merchant fleet, to which it is adding forty-six ships to be specially built in Australia. The customs tariffs give preference to goods from the United Kingdom, and there is a reciprocal agreement with South Africa. There are British Trade Commissioners at Melbourne and Sydney, besides Imperial Trade Correspondents at Brisbane, Adelaide and Perth.



## AUSTRIA

**Area and Population.**—The Republic of Austria has an area of about 32,000 miles (about the area of Ireland) and a population of approximately 6 millions. Of these about one-third (2 millions) normally lived in Vienna, which, as the capital of the great Austro-Hungarian Monarchy, was a cosmopolitan city, ranking as the "Paris" of East-Central Europe. As the impoverished capital of a petty Republic, Vienna must necessarily decline in population and importance, but the unique position which the city holds, at a gathering-point of routes from all points of the compass, ensures to it a large measure of prosperity once economic order is



FIG. 16.—AUSTRIA.

restored. Moreover, it is a great financial centre, and the activities of the big Banking Houses and of the Stock Exchange have not been interrupted. It is the leading centre, too, of German culture, and has Art Galleries and Museums of world reputation. The people of Austria are Germans by race and speech, Roman Catholics by religion, but there is complete religious liberty. No estimate of the total foreign trade of the new Republic can be accurately made, but since the majority of the people are well educated, and the standard of living is fairly high, it should eventually be considerable. The bulk of it will be, however, with the neighbouring States, since Austria now lacks a seaboard, and hence cheap sea-borne goods, e.g. from Great Britain and the United States, will not have any great advantage in competing for this market. Apart from Vienna, Linz, on the Danube, with 93,000 people, Grätz, in the mining district, with 157,000, and Innsbruck, in the Tyrol, are the chief towns.

**Austria.**

**Position and General Physical Conditions.**—Austria marches with no less than six other States—Germany (Bavaria), Czechoslovakia, Hungary, Jugo-Slavia, Italy and Switzerland. Its greatest extent is from west to east—over 300 miles, while it lies between latitudes  $46\frac{1}{2}^{\circ}$  and  $49^{\circ}$  N., the position of Vienna being about  $1^{\circ}$  farther south than that of Paris. The only lowland is the Vienna Basin, where the summer heat and winter cold are somewhat severe, and the rainfall moderate. West of Vienna is a hilly country of which the main feature is the Danube valley, this river entering Austria from Germany by a picturesque gorge. Nearly half the country forms part of the Alpine System, the chief subdivisions being the Vorarlberg, on the borders of Switzerland; the Austrian Tyrol, trenched by the Inn valley, and crossed by the “Brenner Route” from Germany to Italy; the Eastern Alps, divided into parallel chains and spurs by a series of valleys opening to the north-east and east, i.e. to Vienna and Grätz. The most southerly valley, that of the Drave, expands to the Klagenfurt Basin, an area (now Austrian) in which a plebiscite was taken to decide its political affiliation. The Alpine region has a climate resembling that of Switzerland, with abundant rains, warm summers, and severe winters, when deep snow lies everywhere. The eastern spurs of the mountains form a barrier between Austria and the Adriatic Sea, its nearest seaboard. Hence the route to Trieste, the former port of the Empire, is both circuitous and costly on account of the difficult gradients.

The Austrian Alps are well timbered, hardwoods (beech, oak, chestnut) predominating on the lower slopes, and softwoods (pine, fir) at higher altitudes. There are, besides, rich Alpine meadows and valley pastures, while the scenery, with its snow-peaks, waterfalls and lakelets, is as beautiful as that of Switzerland. But the Austrian mountain zone is less accessible than the Swiss, and while it is capable of development on similar lines, it cannot attain the prosperity of the neighbouring Confederation, which has long enjoyed peculiar political and educational advantages.

**Human and Economic Conditions.**—Austria has no very great advantages of climate or soil, and farming is only of secondary importance, the country being very dependent on foreign sources for food. The Danube valley and the eastern margins of the Alps are carefully cultivated, **rye** being the chief cereal, while comparatively little *wheat* and *barley* are grown. **Potatoes** are abundant, and **hay** is also important, so that there are normally large numbers of *pigs*, *cattle* and *poultry* on the farms, supplying fresh meat and milk to the towns. A little *flax* is grown in Upper Austria; there is some *sugar-beet* cultivation, besides many *vineyards* in the Vienna Basin, and there are *hop* gardens in Styria, but in none of these respects will the Republic be self-sufficing. In the Alpine region **cattle** are grazed in the high pastures in summer and stall-fed on hay in the winter, but the industry is not organised as in Switzerland. The very important mountain forests have, however, been mentioned, and **timber** is a valuable commodity available for manufacture and for export.

There is considerable mineral wealth in the eastern margins of the Alps (Styria and Carinthia), including large beds of **lignite** and important deposits of **iron**. The former produced over 2 million tons of fuel in 1913, and the output could doubtless be increased. In addition, there is a small field of hard **coal** near Steyr in Upper Austria, but the yield is trifling in comparison to the needs of the country, which are estimated at 14 million tons of hard



## Austria.

coal, practically all of which must be imported from Czecho-Slovakia (Silesian mines) or Germany. The output of iron ore amounts to about 2 million tons, and in addition there are large **salt** mines in the neighbourhood of Salzburg. **Magnesite** is mined on a large scale, and 123,000 tons were exported in 1913, the Veitch mines (in Styria) being especially rich, but there are deposits in many districts and foreign capital (German, French, Swiss, American) is being invested in the industry. Some smaller scattered mines of copper, lead and zinc, while not supplying local needs, yet add to the internal resources of the country; consequently mining gives employment to large numbers of people.

As regards manufacturing industries, smelting and the refining of metals naturally take first place. Grätz and Leoben, in Styria, and Steyr, in Upper Austria, are notable in this respect, while the same towns, with Vienna, have important manufactures of agricultural and textile *machinery*, cutlery, tools and hardware. The pre-war output of pig-iron was 600,000 tons, and that of 1920 reached 150,000 tons. Vienna and Wiener Neustadt make rolling-stock, and the former city has a manufacture of iron **furniture** which has a good market abroad, as has also the famous Austrian bent-wood furniture, which is made from native timber, in Vienna and its suburbs. Textile industries are not highly developed, but in the Vorarlberg, on the Swiss border, the villagers carry on the cotton embroidery and muslin industry on the same lines as in the neighbouring State. Vienna has a small silk manufacture and makes the noted Austrian **velours**, (the hat export being considerable), and there are a few cotton and woollen mills in several of the larger towns, including Innsbruck. *Chemical* industries (dependent partly on the salt mines) are well developed, and **matches** are made in bulk, chiefly in Vienna or its neighbourhood, while **paper** and paper goods are manufactured both in the Danube valley and in Styria. The Tyrol and especially the Salzkammergut have peasant industries of wood-carving, including toy-making and wooden-clock making, as in Switzerland, but again on a much less important scale. **Musical instruments**, including pianos, are a valuable manufacture in Vienna.

**Trade Relations.**—Austria must buy a large proportion of the food-stuffs she consumes, including grain, sugar and wine, besides colonial wares; she must also buy certain manufactured goods, including textiles, in bulk, and she must buy hard coal. To pay for these she has first of all a certain range of specialised manufactures to offer (the Austrians rank high as regards technical ability, skill and application); secondly, the beauties of the Tyrol, where the tourist industry is important, and is capable of development; thirdly, a certain quantity of timber; and fourthly, the amenities and activities of Vienna, in so far as these have not been permanently destroyed by the War and its consequences. As a centre of luxury and fashion, Vienna was a market for British luxury articles and manufactured goods of high repute, but apart from this trade, her wants will be most naturally satisfied (provided high customs barriers are not raised) by Germany and the countries which formerly were part of the Austro-Hungarian monarchy, a unit which was to a very large extent economically self-contained.

**General Information.**—The unit of currency is the *kröne* (crown), normally worth tenpence. Paper currency is now the only medium



**Azores.**

of exchange. The metric system of weights and measures is in general use. Mails reach the capital in two days. There is a British Consul-General at Vienna, with a Vice-Consul at Innsbruck. A Commercial Secretary is attached to the British Legation.

**AZERBAIJAN**

See **Caucasia**, p. 135.

**AZORES**

**Area and Population.**—The Azores are treated as an integral part of Portugal, and not as a colony, and send representatives to the Lisbon legislature. The chief islands are S. Michael, Terceira, Pico, Fayal, S. George and Graciosa, covering in all an area of 922 square miles (one-eighth the area of Wales), and having a population of about  $\frac{1}{4}$  million, which has lately been declining. Of this total, 17,000 live at Ponta Delgada, the chief seaport, on S. Michael, and 10,000 at Angra do Heroismo on

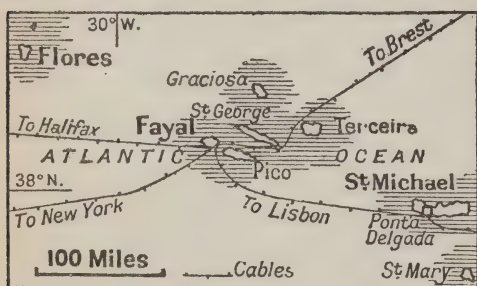


FIG. 17.—THE AZORES.

Terceira. Emigration takes place to the United States and to a less extent to Brazil, and it is estimated that 100,000 Azoreans live in these countries. Many return home when they have acquired some little capital.

**Position and General Conditions.**—

The Azores lie in mid-Atlantic, 1,000 miles west of Portugal, forming a scattered group

between meridians  $25^{\circ}$  and  $32^{\circ}$  W., and latitudes  $36^{\circ}$  and  $40^{\circ}$  N. They have a volcanic soil, of a very fertile character, and an excellent climate, especially in winter, resembling that of Madeira or Bermudas, in its sub-tropical character.

The islands yield wheat, maize, beans, vines, sugar-beet and tobacco for local needs, and some *wine* is exported to Lisbon. *Pine-apples* are also grown for the London market. There are some 21,000 cattle on the islands, which are driven to the hill pastures in the hot summer. Besides supplying local needs, they yield some *cheese* for Lisbon, and are also exported for meat. *Lobsters* are caught and exported. There are also *whale* fisheries. The orange groves were destroyed by disease.

The Azores are important as a calling and cable station between North America and Europe. The climate and position are favourable for the development of a tourist industry. Currency, weights and measures are as in Portugal, and there are branches of the National Overseas Bank of Portugal in Ponta Delgada and Angra do Heroismo. There is a British Consul at Ponta Delgada.

## BAHAMAS

See **British West Indies**, p. 112.

## BAHREIN ISLANDS

**Area and Population.**—The Bahrein Islands are a British Protectorate, the Government of India appointing a Political Resident to the Persian Gulf through whom relations with the native Chief of Bahrein are conducted. The largest islands are Bahrein and Muharrak, and the total area of the group is about 270 square miles. The population is 103,000, chiefly Arabs and negroes, with in addition a large number of Indian and Persian merchants. Manama, the capital and chief seaport, has 30,000 inhabitants; Muharrak, on the island of that name, has 22,000. The total foreign trade in the last three years (1918–1920) averaged £2½ millions, the islands serving as an entrepôt for a considerable portion of the mainland of Arabia.

**Position and General Conditions.**—The Bahrein Islands lie in the Persian Gulf, off the Arabian coast of El Hasa. Their latitude is about 26° N., and the climate is very hot in summer, warm in winter, with very little rainfall. Sheep, goats and donkeys are reared, and **dates** are grown, but the principal industry is **pearl-fishing**, which employs many thousands of the inhabitants. The pearls obtained by the mainland fishers are also sold to the Bahrein merchants. The chief trade is with India (Bombay), whence rice, sugar, tea and coffee are imported, besides large quantities of piece goods. These goods are not necessarily of Indian origin, the textiles including products from Manchester, China and Japan, and the food-stuffs including East Indian produce. Part of the imports are redistributed by *dhow* to the neighbouring mainland, and by caravan to the Nejd in Central Arabia.

The rupee is the coin in general use, but British sovereigns, Turkish lire, Persian double krans, and Austrian dollars are also in circulation. There is a British Indian Post Office at Bahrein, and a wireless station.

## BALEARIC ISLANDS

See **Spain**, p. 433.

## BALUCHISTAN

**Area and Population.**—Baluchistan is a dependency of India consisting of British Baluchistan and the Agency Territories under direct British administration, and the Native States of Kalat and Las Bela, ruled by the Khan of Kalat and the Jam of Las Bela respectively. The total area is nearly 135,000 square miles (Native States 80,400 square miles), and the population in 1911 was 834,000, of whom rather more than half are in the territory directly administered by Britain. The people are of various

**Baluchistan.**

racés, including Baluchs, Pathans, and Brahui (the hill tribes), besides numerous subject peoples, all these being of the Mohammedan faith. There are, in addition, some tens of thousands of Hindus engaged in trade, or in Government service. The language of the majority is derived from Persian with the addition of many Indian words. The total trade, which is in the main with India, is small, being usually under £2 millions. The chief garrison towns are Quetta (commanding the Bolan Pass), Chaman, Fort Sandeman and Loralai, and the chief native town is Kalat.

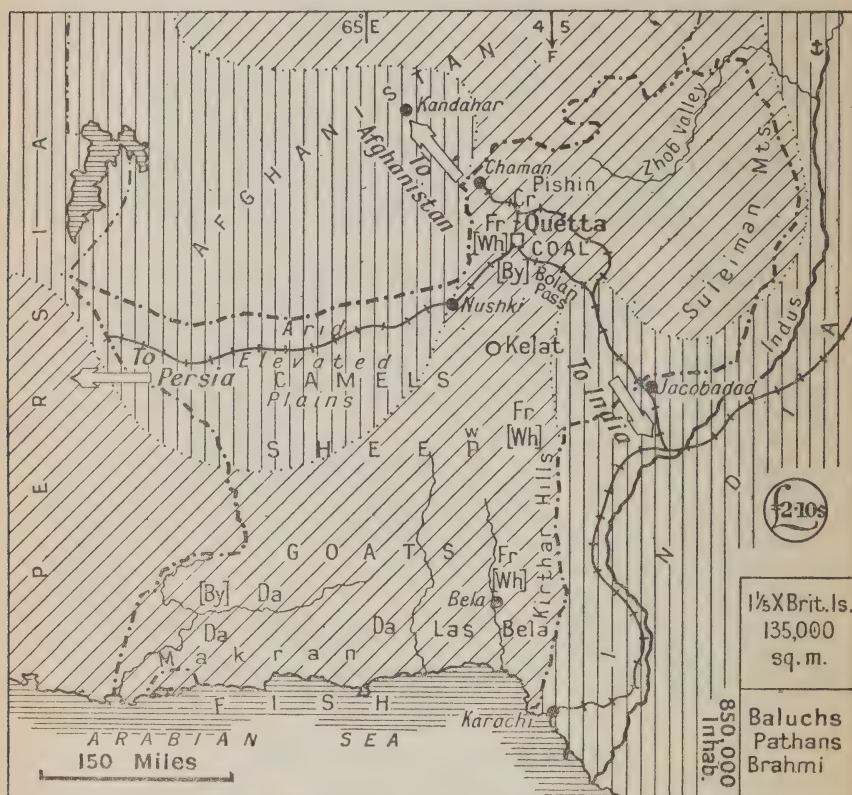


FIG. 18.—BALUCHISTAN.

**Position, Climate and General Physical Conditions.**

—Baluchistan is situated to the west of India, between latitudes  $25^{\circ}$  and  $32^{\circ}$  N. It lies beyond the effective range of the Indian monsoon, and such scanty rainfall as it receives (under 8 in. on an average) comes in winter, like that of Persia and Mesopotamia. The dryness of the air and the elevated character of the whole country lead to great daily and annual extremes of temperature, snow falling in winter, while in summer the heat is almost as great as in the Punjab. The Suleiman mountain ranges border the country towards India, and the Makran ridges towards the Arabian Sea, while the



## **Belgian Congo.**

interior consists of elevated plains, forming part of the plateau which extends through Persia. The rivers which come down from the mountains gradually dwindle as they cross the plains and fail to reach the sea. Vegetation is naturally scanty—light pasture and tamarisk scrub, with wild olive and juniper groves on the mountain slopes, being characteristic. Grafting of the olives with the cultivated variety has been suggested. Much of the country is a rocky or sandy desert.

**Human and Economic Conditions.**—Cultivation is carried on in the mountain valleys, and wherever water can be obtained for primitive irrigation. *Cereals* (wheat, barley, millet) and *fruit*, e.g. apricots, figs, are grown, and the valleys of Makran, in the south, are famous for their *dates*. Pastoral industries are important, *camels*, *sheep* and *goats* being reared, and leather, hair, wool and skins are articles of commerce: many of the pastoral tribes are necessarily nomadic. *Fishing* is carried on along the Makran coast, and dried fish is an article of export.

There is probably considerable mineral wealth in Baluchistan. Some 50,000 tons of **coal** are mined in the north for the railway, and the **chromite** mines of Pishin have been exploited for a considerable period. The output is very variable, according to the state of the market, but during the War it reached 14–15,000 tons. Camel transport is employed between the mines and the railway.

**Trade Relations and General Information.**—In the directly administered districts of Baluchistan there are nearly a thousand miles of fair roads. A railway from Jacobabad in India runs to Quetta, where it bifurcates and extends to the Afghan and Persian frontiers respectively. The country is, however, of strategic rather than economic importance and the trade across the borders is in native hands. Currency, weights and measures are as in India.

## **BARBADOS**

See **British West Indies**, p. 113.

## **BAROTSELAND**

See **British South Africa**, p. 105.

## **BASUTOLAND**

See **British South Africa**, p. 105.

## **BAVARIA**

See **German Republic**, p. 237.

## **BELGIAN CONGO**

**Area and Population.**—The Belgian Congo is a colony administered by a Governor-General, the seat of administration being Boma, on

## **Belgian Congo.**

the estuary of the Congo. It is divided into four provinces: Katanga, capital Elisabethville; Eastern Province, capital Stanleyville; Equatorial Province, capital Coquilhatville; Congo-Kasai, capital Léopoldville—each administered by a Vice-Governor. The area is nearly a million square miles (including the Ruanda-Urundi district, formerly part of German East Africa), i.e. it is nearly as large as British South Africa, and the population is officially estimated at 11 millions, chiefly Bantu negroes. This estimate is by some authorities considered far too low. The European population numbers about 7,000, of whom more than half are Belgians, but of the Belgians all but about 500 are officials, while the traders and planters include nearly 700 Portuguese, 800 English, 240 Americans, and many other nationalities. The average trade for the last years for which complete figures are available (1916–18) was over £15 millions, and as development has been rapid, the figure must now be considerably higher. The value of the exports is more than double that of the imports. Although this works out at only 27s. per head of population, it should be recalled that nine-tenths of the inhabitants play no part in the economic life of the colony. Agricultural research is actively pursued by the Government.

**Position and General Physical Conditions.**—The Belgian Congo includes nearly the whole basin of the Congo River, and extends westwards from the Rift Valley (in which lie Lakes Tanganyika, Kivu, Albert Edward and Edward) to the Atlantic seaboard. The coast is, however, limited to the estuary of the Congo. The bounding latitudes are 5° N. and 12° S., so that the colony is wholly equatorial in character, and has a uniformly hot climate, with very heavy rains, especially at the equinoxes. Katanga Province, in the south, besides being farthest from the Equator, is also more elevated than the rest of the basin, and has a cooler and healthier climate. It is an open savannah country, whereas the main part of the basin is densely forested, especially in the valleys, although lighter woodlands are found on the rising ground between the numerous rivers. The Ruanda territory is also very elevated, and is an open country. The forest is in parts very dense, and difficult to penetrate owing to the lianes (creepers) that are festooned from tree to tree. It is haunted by the tsetse fly and the mosquito, so that cattle cannot be reared, and tropical fevers are prevalent. The Congo and its major tributaries the Ubangi and Kasai, are the main highways through the forest, both for native and European traffic. Unfortunately the course of the main stream of the Congo takes the form of a vast semicircle, flowing first to the north for about 700 miles, then north-west, west, and finally south-west to the sea, hence it offers a very circuitous routeway for all but local traffic.

**Human and Economic Conditions.**—The natives of the Congo practise a primitive agriculture, growing yams and plantains, and in some villages rice, cotton and tobacco; only in the fly-free districts such as Katanga and Ruanda where there is also abundant pasture, do they rear cattle. The pygmy tribes, who live by hunting and collecting wild fruits and honey, are few in numbers.

Until quite recent years the chief economic product of the Congo was *wild rubber* collected by the natives, followed by *ivory*, elephants being numerous in the forests. Of greatest importance now are **palm-kernels** and **palm oil**, between 30,000 and 40,000 tons of nuts being collected annually.

## Belgian Congo.

Equally important are the **Katanga copper** mines, situated at Kambove, on the Cape to Cairo railway, which produce between 20,000 and 30,000 tons of copper ore, annually. There are also productive **diamond** mines in the Kasai district, and many small alluvial **gold** mines near Kilo in the north-east. **Tin** is now mined at Busanga. About 2,000 tons of wild **rubber** are produced, and about 5,000 tons of white **copal gum** are dug. **Coffee** is indigenous, and is easily cultivated, about 150,000 lb. being produced in 1918. **Cacao** plantations have been successfully established, and some

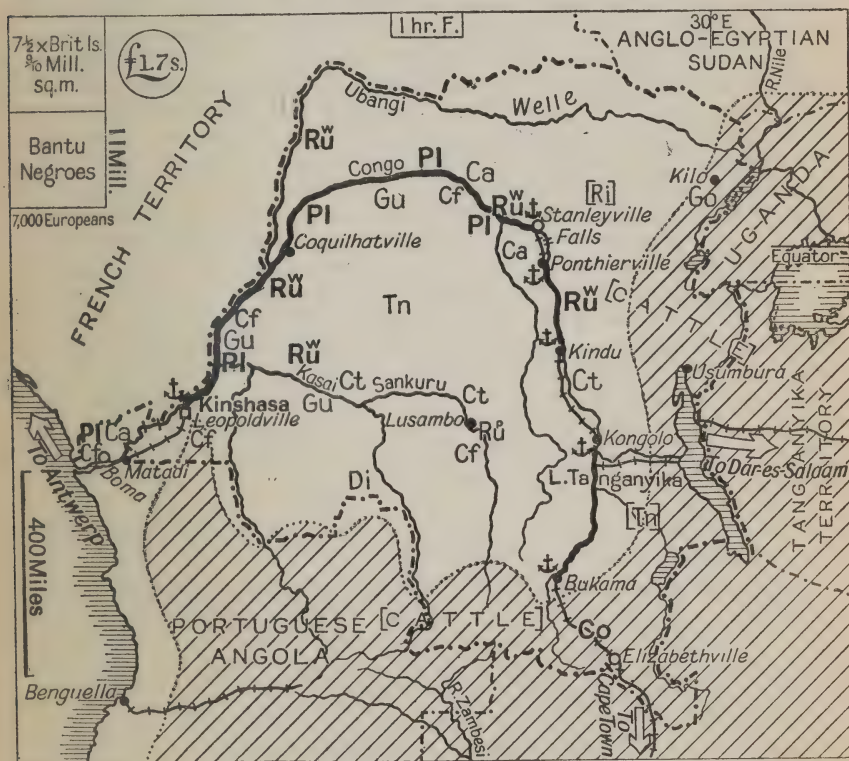


FIG. 19.—BELGIAN CONGO.

plantation rubber is grown. The native **cotton** industry is being fostered and extended, especially in the Sankuru-Kasai Valley, where there is a ginning factory at Lusambo, and in the Manyema district east of the Congo, with a machine gin at Kibombo. Hand-gins have also been introduced. The output is about 4,000 bales. A venture of great interest is the establishment of a *paper-pulp* factory at Elisabethville, the wild papyrus affording abundant raw material.

**Trade Relations.**—The greater part of the trade is with Belgium since Antwerp is an established market for colonial produce, but among foreign countries the United Kingdom holds the first place, the total



**Belgium.**

trade with the colony for 1919 being £2 million. Cotton piece goods for native trade are the largest class of goods imported, followed by provisions and beverages for the European community. There is also a large import of steamers and ships, machinery and construction materials generally, in which the United States and France have some small share. The railways have been built so as to supplement the waterways. The Cape to Cairo railway enters the country from the south, passing through Elisabethville and Kambove and thence to Bukama on the Lualaba (Upper Congo). A short extension to a more suitable river port will be made. The river is navigable to Kongolo, where a line is built to Kindu (327 miles) to avoid falls and rapids; thence the river affords a route to Ponthierville, where a line is built to Stanleyville to avoid the Stanley Falls. From this point there is uninterrupted navigation for 1,000 miles to Stanley Pool, where Léopoldville stands, and in this section the Congo receives the navigable Ubangi from the north, and the Sankuru-Kasai from the east. From Léopoldville to Matadi, another section of railway is necessitated by the falls and rapids, and thence the estuary is navigable to the ports of Boma and Banana. The last section of the railway, which carries the heaviest traffic, is being improved, and a forward railway policy is in operation. From the Lualaba, a branch line runs to lake Tanganyika, whence steamer connection is possible to the lake terminus of the Dar es Salaam railway. Concessions have been secured for the free transit of Belgian goods through this port. The Katanga mining district will in course of time find a more direct outlet along the line (British built) which is being pushed inland through the open country on the Zambesi-Congo watershed from the Portuguese port of Benguela (Lobito Bay). Oil for the use of river steamers is carried by a pipe line from Matadi to Leopoldville. Over 100 vessels ply on the Congo.

Boma, the chief seaport, is 50 miles up the estuary, and here the river has a minimum depth of 16 ft. in July.

**General Information.**—The unit of currency is the *franc*, and the metric system is in use. The Banque du Congo Belge (with a London office) operates throughout the country, and the National Overseas Bank of Portugal has a branch at Kinshasa (Léopoldville). The languages of commerce are French and Portuguese. There is a very complete local telegraph and wireless telegraph system, and connection with Brussels is to be established. There is a British Consul at Boma and a Vice-Consul at Elisabethville.

## BELGIUM

**Area and Population.**—The Kingdom of Belgium has an area of nearly 11,400 square miles (i.e. it is rather more than one-eleventh the size of the British Isles), and a population of just over  $7\frac{1}{2}$  millions, or one-sixth that of Britain. Thus it is very densely peopled, more so, in fact, than any other country in Europe. The increase in population is very slow, owing to the low birth-rate, but there is practically no emigration. In the capital city, Brussels, there are nearly 680,000 people, and in the only commercial seaport, Antwerp, there are nearly 320,000. Apart from these,

## Belgium.

there are only two large cities, Liège and Ghent, for the bulk of the people live in rural districts, and even artisans frequently possess a cottage and garden or a small cultivated plot outside the city where they work. This dispersal of the workers is facilitated by the low fares charged by the State Railways. The average trade in the last two normal years (1912-13) was £340 millions, or £45½ *per capita*, of which 56 per cent. represented imports and 44 per cent. exports. The total for 1919 was only £315 millions, (taking the franc at par), of which nearly 65 per cent. represented imports, and the actual volume of trade was less than half the normal. Figures for 1920 show a further recovery, particularly as regards exports, but the restoration of industries has been less rapid and complete than was expected. However, the volume of trade in 1920 was double that of the previous year (estimated by weight), and its value was nearly 20,000 million francs, or £348 millions at the average rate of exchange of the depreciated franc. Loans for reconstruction amount to between £35 millions and £40 millions.

The language of commerce and of educated people in Belgium is French, but the peasantry of the west and north speak Flemish, a language akin to Dutch, while those of the south and south-east speak Walloon, which is akin to French. This distinction of language has its root in a distinction of race, and the "Flemish Movement," which is anti-French in character, is one of the serious problems of Belgian internal politics.

**Position and Climate.**—Belgium lies between  $49\frac{1}{2}^{\circ}$  and  $51\frac{1}{2}^{\circ}$  north latitude and  $2\frac{1}{2}^{\circ}$  and  $6\frac{1}{2}^{\circ}$  east longitude, marching with Holland, Germany, Luxemburg and France, and having 42 miles of unbroken coast on the North Sea. The climate resembles that of East Anglia, but is rather colder in winter and hotter in summer, besides being somewhat rainier. Thus it is a good climate for agriculture, although not a pleasant one.

**General Physical Conditions.**—The line formed by the Sambre, together with the Meuse between Namur and Liège, divides Belgium into hill and plain. To the south of this line lie the limestone hills trenched by the picturesque valleys of the Upper Meuse and Ourthe, and behind these rises the high plateau of the Ardenne, thinly peopled and clothed with dense woods, varied by moor and peat bog. The Ardenne falls away towards the French frontier to a second hilly limestone district, important because the rocks are often associated with very valuable iron ores, but the chief productive areas are beyond the frontier, in France and Luxemburg. To the north of the Sambre-Meuse lies the Belgian Plain, of which the greater part is covered with clay and loam and forms a rich agricultural region. Towards the north, however, the soil is sandy, and although much of it has been improved and rendered productive, there remains a large scantily peopled area, the Campine, lying along the Dutch border, of which a large proportion is waste. In the west, a broad belt in West Flanders is very low-lying, and is kept from flooding only by a network of canals and dykes, so that it resembles the Dutch polders. Here the soil is alluvial. The whole of the plain is drained by the Scheldt and its tributaries, the largest of which—the Lys—joins the main stream at Ghent. The estuary of the Scheldt is in Dutch hands, and hence Antwerp can only be approached through foreign waters. Ghent suffers from the same disadvantage, for it is connected by a ship canal through Dutch territory with Terneuzen on the Scheldt.

**Human and Economic Conditions.**—Except in the sandy



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Campine, and on the bleak plateau of the Ardenne, the soil of Belgium is everywhere very thoroughly cultivated, and agriculture is of great local importance. Nearly the whole of the devastated area is once more under cultivation. The farming is of a mixed character, nearly equal areas being devoted to corn crops and green crops (including permanent pasture), while roots cover about one-fifth the total acreage. These include *beet-root*, yielding normally some 300,000 tons of **sugar**, which is largely refined locally, and of which about half is available for export. The **flax** crop is also noteworthy, as being the basis of the famous Flemish linen-weaving industry, and the local production of some 10,000 tons of *tobacco* largely supplies the

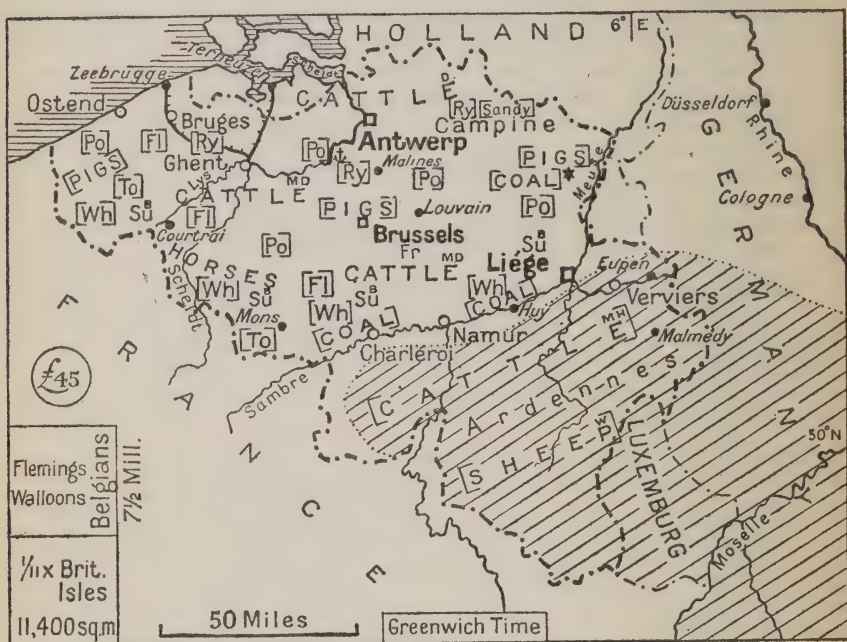


FIG. 20.—BELGIUM: AGRICULTURE AND MINERALS.

home market. Market-gardening is extensively carried on by the numerous small-holders, success being ensured by the density of the population, coupled with cheap transport by rail or light railway, which allows of ready marketing. There is some surplus of *vegetables* and *fruit* for export to Britain. Broadly speaking, however, Belgium is not self-supporting as regards foodstuffs, and this applies also to dairy produce and meat, in spite of the attention given to stock-breeding. *Horse-breeding* is of great importance, however, and the heavy Brabant cart-horses and Flemish horses are exported. Lighter horses and horses for food are imported in large numbers, especially from Great Britain. The co-operative movement is strong among Belgian cultivators and stock-breeders, and is a contributory factor to the normal prosperity of the agricultural population.

As far as external trade is concerned, Belgium is of importance as a



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manufacturing country, the basis of her wealth being the extensive and rich **coal**-field of the Sambre-Meuse area, which runs under Mons, Charleroi, Namur and Liège. There is also a large coal-field underlying the Campine area, in the province of Limburg, of which the reserves are estimated as far greater than those of the southern field. The exploitation of the Campine coal is as yet only begun. The normal output of Belgian coal is about 23 million tons, and this is readily supplemented from the Westphalian coal-field in Germany. Belgium is rich in coking coals, and there is a large manufacture of *coke*, as also of *briquettes*. The Campine field is chiefly of long-flame coals, and hence should eventually attract glass-works, rolling-mills and other industries for which this type of coal is required.

Although there are considerable reserves of *iron* ore, both on the Sambre-Meuse coal-field and in the Campine (bog iron ore), the output is very small, since the abundant Luxemburg ore (*minette*) is so readily imported, while pig-iron is obtained from Germany and France. Spanish and Norwegian ores are also smelted.

The mining of **zinc**, which is found in the neighbourhood of Liège, has also declined to an inconsiderable amount, but nearly half a million tons of foreign (largely Australian) ores are imported and treated in the zinc works which are situated on the coal-field. Belgium normally ranks next to the United States and Germany as a producer of spelter.

The Hainaut quarries yield a limestone *building-stone* known as *petit granite*, which is exported to neighbouring countries and even overseas to a value in 1912 of close on £1 million. The limestone which crops out along the Meuse valley provides material for a considerable *cement* manufacture.

The **iron** and **steel** manufacture and engineering industries of Belgium are of first importance, the pre-war output of pig-iron and steel being about  $2\frac{1}{2}$  million tons in each case, produced by 54 blast furnaces and 68 iron and steel mills. These figures included, in 1913, 342,000 tons of steel rails, 175,000 tons of beams, and over half a million tons of merchant steel. The country competes with Great Britain in heavy steel goods, e.g. locomotives, railway- and tram-cars, engines, steel bridges, etc., but British textile and other machinery is largely imported.

The *textile* manufactures of Belgium are of considerable importance, the **cotton** and **linen** industries being established in Flanders, especially in Ghent and its vicinity. Courtrai, on the Lys above Ghent, is the famous centre for the retting of flax. Raw cotton to the value of £8 millions, and raw flax to the value of about £4 millions, are normally imported, and the exports of flax yarn and of cotton manufactures (largely fancy fabrics) amounted before the War to about £4 millions in each case. There are minor manufactures of hemp, jute and silk, particularly artificial silk and sewing silk. *Lace-making* is an important handicraft employing 50,000 women.

Antwerp is a very considerable market for foreign **wool**, notably from Australia and Argentina, the import (largely for re-export) in 1912-13 averaging £17 millions. An old-established woollen industry at Verviers, in the Vesdre valley on the margin of the Ardennes, now makes use of imported wool, for the number of sheep on the hills has greatly declined. Cheap fabrics of mixed wool and cotton are manufactured and retained for home consumption, while woollen yarn is exported to the value (in 1912) of £2½ millions.

## Belgium.

The **glass-works** of Belgium are of great importance, the town of Charleroi (on the Sambre-Meuse coal-field) being the greatest plate-glass centre in the world. There is abundance of suitable sand in the Campine area, and there are very numerous chemical factories on the coal-fields. Plate-glass, window glass, flint-glass and general glass-ware to the value of £4 millions annually were exported before the War, and the closing of the Belgian factories led to a remarkable expansion of the Japanese window-glass industry. The **paper** industry, dependent on rags and imported wood-pulp, was growing before the War, and yields a surplus for export. **Matches** are made on a large scale for export. Industries which mainly supplied the home market were



FIG. 21.—BELGIUM : MANUFACTURES.

earthenware, pottery and chemicals, including chemical manures, for which the local demand is large, besides the milling of oil-seeds (linseed and colza being locally grown) and soap manufacture. The *diamond-cutting* industry, localised at Antwerp, and dependent mainly on South African stones, employs about 5,000 persons.

All the industries mentioned have been revived, but the weakness of prices, labour troubles and the vagaries of the exchange prevent a large proportion of establishments from working at capacity. Some indication of the renewal of activity is given by the tonnage entered and cleared at the Port of Antwerp, which reached 4 million tons in the first five months of 1920 as against  $5\frac{1}{2}$  million tons in the similar period in 1914.

## **Bermudas.**

**Trade Relations.**—The fact that Belgium is linked up with France, Germany and Holland, not only by a network of railways, but also by an excellent canal system, gives to Antwerp, the focussing-point of these lines of communication, a large entrepôt trade. Besides coal, large quantities of grain, minerals, bricks, cement, timber and so forth are moved by canal. Goods in transit amounted in 1912 to about £97 millions in each direction, Antwerp being a competing point with Hamburg, Rotterdam and Havre for the landing in bulk of grain, wool, hides, rubber, oil-seeds and similar commodities from America, the Tropics and the Far East. Germany, France and Holland, in the order named, are normally the chief countries of destination of Belgian goods, and in the case of the first two, the imports into Belgium are of much less value than the exports from that country. This was due in part to the fact that considerable amounts of German and French capital were invested in Belgium, and in part to the fact that these countries are not in a position to supply the food-stuffs and raw materials that Belgium demands. The British Dominions (Australian wool and zinc, Indian hides, rice, jute and cotton, Egyptian cotton), the United States, the Argentine, Russia and Rumania, all normally had an important position as exporters to Belgium, but offered relatively small markets for Belgian goods. Belgium is, of course, by no means wholly self-supplying as regards manufactures, fine cottons, woollens and linens coming from the United Kingdom, besides machinery and such highly specialised goods as scientific instruments; machinery and motor-cars come from the United States; fine chemicals and dyes from Germany; wines, millinery and luxury articles from France, and so on. In 1912 the imports from Great Britain amounted to £20 millions, and the exports to that country reached nearly £23 millions. In return goods valued at £9 millions only, but in 1920 the exports to Britain greatly increased. Belgian manufactures, especially iron and steel goods, locomotives, trams and glass-ware, find markets all over the world, and notably in Brazil. Ghent and Bruges, both connected by ship-canal with the sea, are secondary ports, the former handling a good deal of raw cotton. Ostend is the packet station for Dover. The electrification of the railway system has been commenced.

**General Information.**—The unit of currency in Belgium is the *franc* of par value 25·22 to £1 sterling. The National Bank of Belgium is authorised to issue notes, and other leading banking establishments are the Banque Belge pour L'Etranger and the Crédit Lyonnais, both with London offices. Mails reach Belgium in one day.

The metric system of weights and measures is in use. There are British Vice-Consuls at Brussels, Charleroi, Ghent and Antwerp, a Consul at Liège and a Consul-General at Antwerp, besides two British Commercial Secretaries at Brussels.

## **BENGAL**

See **India**, p. 280.

## **BERMUDAS**

**Area and Population.**—The Bermudas are a British Crown Colony, administered by a Governor. The islands, numbering about 360,



## **Bismarck Archipelago.**

are very small, the majority being uninhabited; they cover an area of 19 square miles, and support a total population of 22,000, of whom about one-third are whites, and the remainder negroes or coloured. This population is doubled in the winter months, the islands being a favourite tourist resort for Americans. The chief town, Hamilton, has a population of under 3,000. The total foreign trade is about £1,500,000, of which 80 per cent. represents imports. This is due to the dependence of the islands upon the tourist industry and to the fact that it is a coal and oil bunkering station, and has repairing docks. Bermuda is also an important naval base, but the figures given exclude Government stores.

**General Conditions.**—The Bermudas lie in the North Atlantic Ocean, nearly 700 miles to the south-east of New York, and about half-way between Nova Scotia and the West Indies. They are in nearly the same latitude (32° N.) as Madeira, and have the same warm and sunny winter climate. The principal export is, therefore, *early vegetables*, chiefly potatoes and onions, for the New York market. Practically all the trade is with the United States, apart from a small import from Canada and the United Kingdom. There is a market for luxury articles. There are two local banking establishments—the Bank of Bermuda and Messrs. Butterfield & Son. The currency, weights and measures are British. There is cable connection with Halifax (N.S.) and with Turks Islands and Jamaica.

## **BESSARABIA**

See **Rumania**, p. 403.

## **BISMARCK ARCHIPELAGO**

**Area and Population.**—The Bismarck Archipelago, formerly administered with German New Guinea, has, like the latter, been placed under the Mandatory Power of Australia. The islands, including New Britain, New Ireland, New Hanover, the Admiralty Islands and Matthias Group, cover about 18,000 square miles, and have a population of 200,000. Whites numbered under a thousand in 1914, and of these 300 lived at Rabaul in New Britain, the chief town and seaport. The natives are Melanesians, resembling rather the African negroes than the people of Polynesia. They are of sturdier physique than the latter, but less intelligent. Cannibalism and head-hunting are still common. The trade for the whole of German Melanesia (including Papua and the Solomon Islands) was only about £½ million in each direction, but with the rise in prices it has greatly increased in value.<sup>1</sup>

### **Position, Climate and General Physical Conditions.**

—The Bismarck Archipelago are mountainous islands, lying between the Equator and 7° S. latitude, hence the climate is uniformly hot, and torrential rains fall during the season that the sun is south of the Equator. From May to September (south-east monsoon) it is comparatively dry.

<sup>1</sup> For Map see New Guinea.

## **Bolivia.**

The islands are very unhealthy for whites, malaria being prevalent. The soil is fertile, and the islands are forested with palms, bamboos, banyans, rubber, creepers, and other tropical growths.

**Human and Economic Conditions.**—The islanders grow yams, taro, sweet potatoes and sugar-cane for their own use, besides rearing pigs and poultry. The tree of leading economic importance is the coco-nut palm, **copra** being the chief article of commerce. European plantations cover from 40,000 to 50,000 acres only, chiefly under coco-nuts, but a little *cacao* is also cultivated. Experiments have been made with various tropical products, but the labour difficulty is a great deterrent to the introduction of such crops as coffee, tobacco and rice, which require skill and care. The copra crop, which went formerly on German ships to Hamburg or Bremen, went during the War to the United States.

## **BOHEMIA**

See **Czecho-Slovakia**, p. 175.

## **BOKHARA**

See **Turkestan**, p. 460.

## **BOLIVIA**

**Area and Population.**—The Republic of Bolivia forms a roughly shaped equilateral triangle, of which the apex is in the Andes, and the base on the great interior Plains of South America. With an area of half a million square miles, i.e., ten times that of England, Bolivia supports a population less than one-tenth as great, i.e., about 3 millions. Of these rather more than half are Indians, and about a quarter are of mixed Indian and Spanish blood. These people form the bulk of the labouring population. There are only seven towns with more than 10,000 inhabitants, and only one, La Paz, the seat of Government, with as many as 100,000. The capital city, Sucre, has 31,000 people. Like Colombia, this Republic is rich in undeveloped resources, the prime difficulty being that of transport. The outlet from the Plains is eastwards across the whole width of the continent. The outlet from the mountain zone is by railways which must zig-zag down some 15,000 ft. to the Pacific coast. A further difficulty is that Bolivia has no sea-board: it has boundaries with Peru, Brazil, Paraguay and Chile, and has been involved in boundary disputes with each state. That with Paraguay is still outstanding. The *per capita* trade amounted to about £5½ in 1918 and 1919, as against nearly £3 in 1914.

**Position and Physical Conditions.**—Bolivia includes that portion of the Central Andes wherein the ranges diverge to form a broad plateau from 200 to 300 miles across, and standing between two and three miles above the level of the sea. This plateau extends into Peru, and on the borders of the two States is the great Lake of Titicaca, nearly the size of Wales. This lake has no outlet to the sea: it is drained

**Bolivia.**

southwards to Lake Poopo, which is brackish, and from which the overflow waters lose themselves in saline swamps.

The eastern or inland margin of the plateau, which has abundant rains, is trenched by wonderful gorges and deep valleys in which flow the head-streams of the rivers of the Plains. They include the sources of the Beni and the Mamore, which join the Madeira and thence flow to the Amazon,

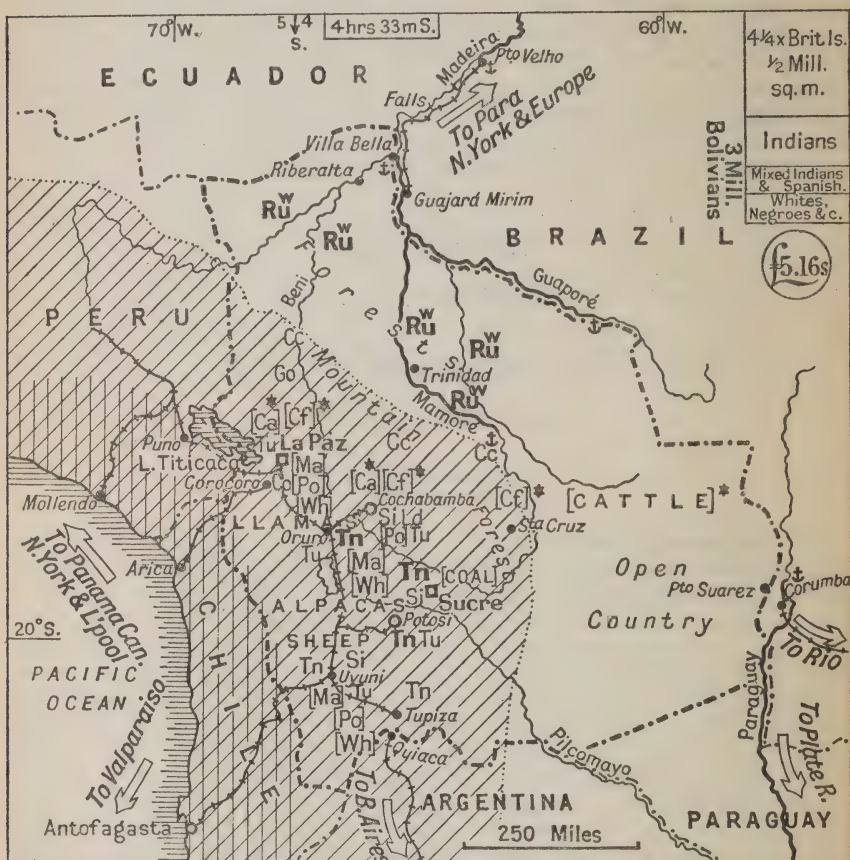


FIG. 22.—BOLIVIA.

and also the sources of the Pilcomayo, an important feeder of the River Paraguay.

The western mountain margin of the plateau is arid, and hence has no rivers, except the streams that come from the snow peaks. The climate of the plateau must, of course, be sharply distinguished from that of the Plains. The latter have an elevation of about 2,000 ft., from which they sink gradually towards the north-west and towards the south-east. In the highest (central) region the conditions resemble those of the Matto Grosso highlands of Brazil. The heat is great, but not excessive, all the year round,



and the rains occur in the summer months only, hence the region is a *llanos*, or grassland (*campos* in Brazil). The lower ground to the north is part of the Amazonian Plain and owing to the combined heat and moisture is densely forested, especially along the river banks. On the lower ground to the south, which is nearly 20° from the Equator, the heat is less, especially in the winter months, and the rainfall is low. This forms part of the Chaco region, where coarse pasture, and thorny shrubs predominate, with a light timbering of hard-wood trees.

The slopes of the Andes overlooking these Plains, known as the *montaña*, are drenched with rain in summer, and are clothed with forest, varying from tropical, with palms, through sub-tropical, with cinchona trees, to temperate forests, and above these the bleak *paramos*. The plateau, hemmed in by mountains, has only a light rainfall, and owing to the elevation, the air is cool. The sun however is powerful, and there is a very great difference between sun and shade temperatures. At night, frosts are frequent. This region is known as the *punas*, and is practically treeless, the natural vegetation being tufts of coarse grass and hardy weeds. It is the natural home of the llama, the alpaca, and the now rare wild vicuna, which graze at different altitudes according to the season.

**Human and Economic Conditions.**—The outstanding product of Bolivia is that yielded by its mines, all of which occur in the mountain zone. Until recent times **silver** was the metal of greatest importance, for it had been worked since the Spanish conquest in the famous mines of Potosi and elsewhere. The demands of modern European industry, however, have made it more profitable to work such useful ores as tin and copper, and the output of silver is much diminished. The export of **tin** is about £5 millions annually, and Bolivia ranks second only to Malay as a source of this metal. During the last few years, **antimony** ore has taken the second place, followed by **copper** and **wolfram** (tungsten ore), each exported to the value of about £1 million. The fact that the ores are very largely transported from the mines on the backs of llamas and mules adds very greatly to the cost of production. Hence only the more accessible lodes and more valuable ores are worked, and the output of all the metals mentioned, together with that of zinc, lead, molybdenum and bismuth might be greatly increased. There are also unexploited *oil* resources of considerable magnitude, especially near Calacota on the Arica La Paz railway.

All the plateau towns are mining centres. Besides La Paz and Potosi there are Cochabamba (population 31,000) and Sucre, both situated in deep valleys in the eastern part of the mountain zone, and Oruro (population 23,000) between Lakes Titicaca and Poopo. Corocoro and Colquechaca are rapidly growing centres. The main railway line runs from north to south over the plateau. Starting from La Paz, it passes through Viacha and Oruro, and then to Uyuni, where it turns south-westward and descends the Andes to the desert port of Antafagasta in Chile. Branch lines from this railway run to Cochabamba (from Oruro), to Potosi and to Huanchaca. The plateau section has lately been extended southward via Uyuni and Tupiza (with tin mines) to within 125 miles of the Argentine frontier. This line will eventually be carried to the frontier and linked with the Argentine railway at La Quiacha, which goes via Jujuy to Buenos Aires. Northward from La Paz the line is carried to Guaqui, a port on Lake Titicaca, on which steamers ply in connection with the Peruvian railways. A railway runs

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also from La Paz directly to the Chilean port of Arica, with a branch to the Corocoro copper mines. Many of the chief towns, for example Sucre, are, however, still without railway communications, and even where these exist, the freights are necessarily high, for the cost of construction in such difficult country has been great, and all coal must be imported from abroad. The nearest supplies are from Chile, and other sources are New South Wales and Great Britain.

The future of Bolivia must depend largely upon the wise development of its abundant water-power. The mines and the railways should be electrified, and the extraction of metals from their ores carried on by electrical processes. The Bolivian Government is already promoting a comprehensive scheme, but a large capital expenditure is necessary, and some years must elapse before large hydro-electric installations are in active existence. The total revenue of the country is only about £4 millions per annum.

The subsidiary industries of the plateau are the rearing of *llamas* for beasts of burden, of *alpacas* for their wool, and of *sheep* for wool and meat. Such food-crops of temperate climates as barley, beans and potatoes are grown for local consumption. The eastern mountain slopes and deep valleys with their hotter climate offer greater agricultural possibilities, being suitable for maize, vines, coffee, cacao and so on. The *montaña* yields cinchona, and *coca* (for cocaine), while down on the Plains there is a considerable output of *rubber* from the northern forest section. This rubber is taken to Riberalta on the river Beni, and put on the Madeira-Marmoré railway, built by an American Company for Brazil to avoid a great series of falls and rapids, below which (at Porto Velho) the cargo is transferred to a river steamer and shipped down to Para. The rising central section of the Plains, the Santa Cruz district, has some *cattle*, and is suited to the development of the stock-raising industry on a very large scale, but the pastoral as well as the agricultural industries of eastern Bolivia await improved means of communication, and the investment of foreign capital. Corumba, a Brazilian frontier town, on the line from Santos, is the nearest rail-head. It is thought, however, that there is a considerable oil-field at the eastern foot of the Andes, and the exploitation of this product should materially accelerate progress in the whole region.

**Trade Relations.**—The total foreign trade of Bolivia amounts to some £14-17 millions annually, and the United Kingdom, as a large purchaser of tin for tin-plates, used to take more than half the export. During the war years, however, larger purchases were made by the United States. Britain, however, takes only the second place in supplying the manufactured goods that Bolivia needs, the United States coming first. German traders also had a very strong footing in the country previous to 1914. The exports from Bolivia are greatly in excess of the imports, the difference largely representing interest on foreign capital and foreign loans, more than half the public debt being external.

**General Information.**—The monetary unit is the *boliviano*, the rate of exchange being fixed at 12·5 bolivianos = £1. The principal banking establishment at La Paz is the Banco de la Nacion Boliviana, with agencies in London. The metric system is in official use, but the old Spanish weights and measures are popularly employed. These include the *quintal* of 101 lb. and the *arroba* of 25 lb. The language spoken is

Spanish, and the religion of the State is Roman Catholic. Mails take about a month to reach La Paz. There are British consular representatives in all the leading towns, including La Paz, Oruro, Sucre, Santa Cruz and Cochabamba, and a Commercial Secretary is attached to the Legation.

## BORNEO, BRITISH

See **British Borneo**, p. 75.

## BORNEO, DUTCH

See **Dutch East Indies**, p. 189.

## BOSNIA

See **Jugo-Slavia**, p. 314.

## BRAZIL

**Area and Population.**—The United States of Brazil have an area of  $3\frac{1}{4}$  million square miles; that is to say rather greater than that of the United States of America. The population, however, is less than one third that of the Republic of the sister Continent, the number of Brazilians being  $30\frac{1}{2}$  millions (1920 census). Broadly speaking, whereas the North American States lie wholly in the temperate zone, Brazil is



FIG. 23.—BRAZIL: CHIEF ECONOMIC REGIONS.

essentially a tropical country: one, therefore, in which Nature places many great obstacles in the path of development. Hence, although Brazil was settled by the Portuguese more than 400 years ago, the value of its foreign trade is only about 1 per cent. of that of the States. Yet a few decades should see this disparity very considerably reduced, for as regards area, resources, and population, Brazil is the premier Republic of South America. At present, its total foreign trade is second



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only to that of Argentina but amounts to only £7 a head (1920). There is a notable concentration of the population of Brazil in great cities. These include the capital, Rio de Janeiro, with over 1 million people, São Paulo ( $\frac{1}{2}$  million), Bahia (350,000), Para or Belem (275,000), Pernambuco (216,000) and Porto Alegre (150,000). There is a considerable immigration from the western Mediterranean (Spain, Portugal, Italy), while of more northern peoples the Germans alone are fairly numerous.

**Position and Climate.**—Brazil lies wholly to the East of the Andes, stretching across the widest part of South America, and having an outlook to the Atlantic Ocean. No part of the country is so far west as New York, and the mouth of the Amazon is less than 4,000 miles (ten days' sail) from Southampton. As regards latitude the country extends from about 10° north of the Equator to 33° south, but it is broadest in the torrid zone, narrowing down to an average width of about 300 miles outside the Tropic of Capricorn. The extra-tropical region is, notwithstanding, considerably larger than the British Isles, and as regards situation and climate may be compared with Natal or New South Wales.

In the low-lying Amazon basin, and along the tropical coastal plains, drenching rains, coupled with a uniformly high temperature, occur at all seasons of the year. On the higher ground to the north and south of the flood plain of this great river, there are hot regions having a season of drought at the winter solstice, and abundant rains in summer. In the vicinity of the southern tropic the climate may be described as of the warm temperate type, with plentiful rains during the greater part of the year; this area somewhat resembles Southern China, Rio de Janeiro having the latitude of Canton. In the projecting north-east angle of Brazil, behind the coast ranges and near the São Francisco valley there is an area of rather low rainfall, which is occasionally subject to severe drought; but Brazil as a whole suffers from no deficiency of moisture, and has no irrigation problems to deal with. It has the further advantage besides that much of the area lying within the tropics, where excessive heat might be expected, is raised to such an elevation that the temperature is considerably modified, as is the case for example in Rhodesia.

**Physical Conditions.**—A region of Brazil that stands out as a well-marked unit is the great plain of the Amazon, stretching from the foot of the Andes to the sea, and drained (or sometimes flooded) by the main channel of the Amazon, assisted by the Rio Negro on the left bank, the Purus and Madeira on the right, to name but three of its many majestic tributaries. The plain is bottle-shaped, being narrowed to a neck near the river's mouth by the Guiana Highlands to the north and the Brazilian Highlands to the south.

The Brazilian Highlands are an outstanding feature of the topography of the country. They rise abruptly from the Atlantic coast, the edge of the tableland appearing from the sea as a series of mountain ranges, the Serras. On the landward side, however, there is not a steep drop, but a long gentle slope towards the interior. In consequence of this tilt of the tableland away from the Atlantic, the rivers have difficulty in reaching the sea. The São Francisco flows northward, parallel to the coast, for nearly a thousand miles, and then, making an abrupt bend eastwards, plunges by a series of falls down to sea-level. The Parana flows southwards, also parallel to the

## Brazil.

coast, until it crosses the frontier, while a third, and smaller river, the Parahyba, takes an eastward direction parallel to the section of the coast that runs from west to east and is broken by the harbour of Rio de Janeiro. In the interior of the tableland, the Uplands of Matto Grosso form a divide from which the waters are sent northward to the Amazon and southward to the Paraguay-Parana system. Consequently, apart from the Amazon, there is no great riverine or estuarine entry into the heart of Brazil, and the development of the interior is correspondingly handicapped.

Although the tableland, with its abrupt seaward slopes, offers a barrier



FIG. 24.—SOUTHERN BRAZIL.

to communication, it is in other ways a useful asset to the country. The climate of the elevated regions is pleasant and healthy, and the rivers that descend the steep slopes of the Serras to the sea are capable of providing driving power for enormous hydro-electric installations, of which several are already in existence.

The greater part of Brazil is still clothed with its natural wild vegetation. Dense forests of palms, hardwoods, dyewoods, nut-bearing and rubber-trees, laced together by a tangle of creepers and parasitic plants, cover the Amazonian lowlands. These are the *selvas*. Wherever the ground rises well above flood level the forests are more open, and on the Guiana and Brazilian Highlands the characteristic vegetation is a tropical grass land, the *campos*, with scattered palm trees and thorn-bushes, and gallery forests along the



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river sides. In the dry north-eastern district, and on the poorer soils generally, the grassland is replaced by thorn forests known as *caatinga*. The wet Atlantic slopes of the highlands are clothed with virgin forest, and in the Parana basin there are sub-tropical woodlands of evergreen trees and shrubs, including the yerba maté or Paraguay tea. Towards the south, open woods of the *araucaria* or Brazilian pine (now a timber tree of commerce) occur, and there are large areas of temperate grassland, the *campinos*, which are of a similar character to the *pampas* of Argentina. The *campos* resembles more the savannah lands of Africa, as found in Nigeria or Uganda. Naturally there is no abrupt boundary between forest and grassland, but the woodlands gradually thin out in the directions in which the rainfall diminishes.

**Human and Economic Conditions.**—Since the great navigable river of Brazil, the Amazon, leads only into the heart of the virgin forest, while elsewhere the edge of the tableland walls off the interior, it is natural that the population should be largely grouped about a few favoured centres along or near the coast. Of these, Rio de Janeiro, the largest city, has the greatest natural advantages, chief among them being its magnificent land-locked harbour. Standing almost on the Tropic of Capricorn, it is within the region of tropical luxuriance of vegetable growth, yet is free from the oppressive excesses of heat and moisture found in the *selvas* region. Moreover, as the *Serras* rise up steeply behind the coast, districts enjoying the combination of pleasantly cool air and hot sun, are readily accessible. Apart from the advantages of its immediate surroundings, Rio owed its prosperity to its commerce in three valuable commodities—coffee, gold and diamonds. The two latter came from the interior tableland, being the products of the State of Minas Geraes : with their small bulk and high value, the expenses and difficulties of transport were a negligible factor. For the **coffee** plantations, the parallel mountain slopes (the *Serras*) behind Rio offered an ideal situation. Patches of virgin forest were cleared, and the shrub planted in the rich vegetable mould that was the accumulation of ages. The coffee berries were sufficiently valuable to bear the cost of transport on pack-mules down the mountain paths, while, with but little effort, cattle, pigs, grain, fruit, and vegetables were raised on the plantations to supply cheap food for the negro slave labour that was employed until 1889. Since 1857 there has been a steady development of the railways, with Rio as focus, and as a result, not only has coffee planting enormously increased, but it has become possible to market the locally grown foodstuffs, which at one time were only consumed or wasted on the *haciendas*. Hence stock-raising and general farming have developed very considerably, the crops including *rice*, *manioc*, *maize*, *beans*, *tobacco*, *sugar*, *vines*, *oranges*, *pine apples* and *bananas*. The railways were soon carried inland to the mining districts on the tableland. Here are found the natural pastures, or *campos*, interspersed in the south and east with much scattered woodland. Hence as a result of the improved means of transport, stock-raising on a large scale was pursued, and in recent years the herds of Minas Geraes have been steadily improved by the importation of pedigree bulls from Europe. The same long, hot, wet summers that produced abundant pasture were found admirably suited to the **cotton**-plant, also cultivated in the coastal belt. Maize, too, was found to be an easily-grown and prolific crop. Hence Minas Geraes with its varied resources is among the most prosperous and



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progressive of the Brazilian States. Valuable **manganese ores** are being extensively worked (450,000 tons went to the United States in 1920), and the deposits of low-phosphorus **iron ore** at Itabira are considered to be the richest in the world. At present these are untouched, for, except in the south, Brazil lacks good coal, and the nearest railhead for the coast is 75 miles away over somewhat difficult country. The capital of the State of Minas Geraes is Belo Horizonte (population 25,000), a newly-built city that has supplanted the old capital, Ouro Preto, once famed for its gold mines (population 14,000).

The neighbouring States of Espírito Santo and São Paulo, the latter especially, are also very important for their *coffee* plantations. Espírito Santo includes the coastal belt and Serras only, and grows sugar largely. Its capital city, Victoria (population less than 25,000), is connected by rail

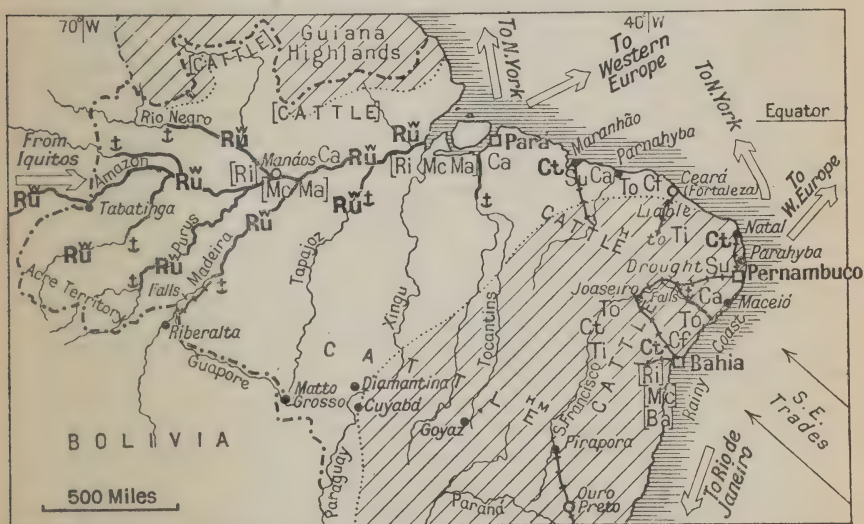


FIG. 25.—NORTHERN BRAZIL.

with Rio, and also with the interior tableland. São Paulo extends from the coastal belt over the interior tableland, and consequently *cattle*-rearing and *cotton*-planting are also important. The capital, also named São Paulo, is situated on the edge of the highlands, at an elevation of 2,500 ft. It is the second city of the Republic, and is the focussing point of railway lines running in all directions, including the through routes to the River Paraguay and to the Plate estuary. A line of mountain railway connects it with its seaport, Santos (population 40,000), which has a coffee export double that of Rio. The latter city has now a population exceeding a million people, while the suburb of Nictheroy, on the opposite side of the Bay, has over 86,000.

So long as Brazil was dependent for prosperity upon her comparatively short-lived and irregularly productive gold and diamond mines, and upon the single crop, coffee, subject to failure in bad years, and to falling prices in good years, the country passed through cycles of trade inflation and of acute

**Brazil.**

depression and even widespread ruin. The old mines are now relatively unimportant, but they served to draw a population into the interior, and the subsequent growth of varied subsidiary agricultural and pastoral industries has had a stabilising effect upon the economic position of the community as a whole.

Second only in importance to the region just described, is the north-eastern coastal belt of Brazil, with the two great seaport cities, Bahia and Pernambuco. The former stands on a fine land-locked bay, while the latter has a natural breakwater in the shape of a coral reef. To the south and north, respectively, of Pernambuco, are the secondary ports of Maceio (68,000) and Parahyba (32,000). This coastal belt lies within  $7^{\circ}$  and  $15^{\circ}$  of the Equator, and is essentially a plantation region, for both heat and moisture are abundant through the year. *Cotton, sugar, cacao, tobacco, and coffee* are among the more valuable crops, while rice, manioc, bananas and so forth are widely grown for local consumption. The region includes the lower San Francisco valley. This river is broken by falls where it leaves the tableland, and a short length of railway joins the two navigable reaches. Direct lines from Bahia and Ceara meet at a point on its banks above the falls. The tableland behind this coastal region is comparatively little developed, but cattle are reared on the *campos*, rubber, wax and timber are obtained from the wooded valleys, and the crops include tobacco and manioc. The northern coast, from C. San Roque to the Amazon mouth, is developed on similar lines to the north-east coast, but the climate conditions are less favourable. The chief cities are seaports, and have short lengths of railway running inland, but no connecting lines. Ceara (Fortaleza), the largest, has a population of 70,000, while next in importance is Maranhão (S. Luiz, population 58,000), followed by Parnahyba, situated between the two.

The third region of economic importance, isolated as are the first two, is the Amazon Basin. This is practically a "one crop" region, dependent entirely upon the collection and export of wild "Para" **rubber**. The best quality (hevea) rubber comes from trees which grow in the belt annually flooded by the Amazon and its confluent, and up to the present it still commands a higher price than the plantation rubber of the East. Since 1912, however, the supplies of the latter have increased until they now equal the wild supply. The growing consumption has kept pace with the output, but the Brazilian merchants are considering how they can effect improvements in collection, preparation and transport, which will enable them to maintain their position in future. Attention is being paid also to secondary crops, among which *cacao* is of rapidly increasing importance, the equatorial climate being exactly suited to its requirements. Cotton, too, could be grown with success. The *timber* of tropical Brazil is only exported on a small scale, but shipments show an increase. *Rice, manioc, maize*, and other foodstuffs are also being more carefully grown, and the result should be a lowering of the cost of living in the "rubber cities" which have hitherto imported a large proportion of the necessities of life.

These cities are two. Para, the ocean port, stands at the mouth of the Amazon, in the channel behind the island of Marajo. Manaos, the river port, stands on rising ground at the junction of the Amazon and the Rio Negro, and not far above the confluence of the Madeira, these rivers affording waterways to the north and south of the basin respectively. River steamers



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can follow the main stream to Iquitos, the rubber port of Peru, 2,200 miles from the sea. Para (Belem) has over a quarter of a million inhabitants, i.e., it is about as large as Hull, while Manaos has over 80,000, equal to the city of York. Both are magnificently built modern cities, and the careful attention given to water-supply and sanitation keeps them comparatively free from the tropical diseases and fevers usually associated with the equatorial lowlands. An interesting feature of the development of the Amazon basin has been the establishment of a series of wireless stations for local intercommunication, the ordinary posts and wires being a practical impossibility in the virgin forest.

The fourth, and most recently developed, economic region of Brazil, and possibly that of greatest interest to British people, is the extreme south, the extra-tropical States. The largest city, Porto Alegre, with well over 150,000 inhabitants, lies in latitude  $30^{\circ}$  S., almost exactly that of Durban in Natal. It is to this part of Brazil that the greater number of European emigrants, other than Portuguese, have been attracted, and there are a number of flourishing German colonies, these nationals and their descendants totalling over half a million. The country is of a hilly character, and is drained inland to the Uruguay River, which forms the western frontier. The vegetation is of open woodlands of Brazilian pine, varied by stretches of grassland (the *campinos*). Hence it resembles Uruguay in being a stock-raising area. The number of cattle in Rio Grande do Sul, the principal State, is over  $7\frac{1}{4}$  millions, about half a million more than the number in Minas Geraes. At Porto Alegre, and at other centres in the stock-raising regions, there is a large industry in the preparation of charque, or jerked beef, which forms part of the daily food of the labouring population of Brazil. The shortage of meat during the European war led to the establishment of a Brazilian meat-packing industry on a firm basis. Besides the establishments in Rio Grande do Sul (e.g., at Pelotas, a town behind the port of Rio Grand), there are several plants at or near São Paulo, at Santos, and in Minas Geraes. The value of meat and by-products exported from Brazil in 1918 amounted to £13½ millions, of which £4½ millions represented hides and leather, the remaining £9 millions frozen, tinned and dried meat, lard, etc. This industry is only of a few years' growth, and although sharing the world-wide set-back obviously has a great future. The existing herds of cattle in Brazil are capable of great improvement in weight and quality by the introduction of blood-stock, while there are thousands of square miles of *campos* in the interior which could carry cattle, e.g., in Goyaz, Matto Grosso, and in the extreme north of Amazonas. The chief danger to be fought is disease among the herds, while lack of co-operation between breeders, slaughtermen and packers may check development. As has been the case in Argentina, the need for foodstuffs to fatten stock will stimulate agriculture in the better watered parts of the stock-raising States. Rio Grande do Sul grows *maize*, *wheat*, *linseed* and *alfalfa*, although at present enormous quantities of grain are imported from Argentina and Uruguay. The *campos*, too, are suited to *maize* production, and in Minas Geraes there are 2 million acres under this crop. In all the stock-raising areas, however, an extension of transport facilities is very much to be desired. Nowhere is there a close railway network like that of Argentina. Dairying and pig-breeding to supply the home market with butter, cheese, bacon and lard are carried on in the south of



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Minas Geraes, and in the east of the States of Parana and Sta. Catharina. This industry, too, could be very greatly extended.

**Trade Relations.**—The coffee exported from Brazil is still about four times as valuable as any one other commodity sent abroad, and it is only in recent years that it has accounted for less than half the total export trade. The products of the cattle-rearing industry, including the large export of leather, have ousted rubber from the second place, and this commodity now ranks third. The yearly value, however, both of coffee and of rubber, shows great fluctuations, and in 1920 abnormal market conditions placed rubber still lower on the list.

The world shortage of sugar has prompted an increased production and export of this crop, hitherto mainly consumed locally, and other valuable staples are cacao and tobacco. Of about equal value to the export of the last named is that of yerba maté, which is marketed mainly in other parts of South America. Since it grows in the middle and lower Parana basin it is one of the staples of the State of Parana and its capital Curityba.

Cotton has normally only a small export value, for the bulk of this widely grown crop is spun and woven in local mills. The cotton manufacture is the most important in Brazil. In a country where cotton clothing is practically universal, it meets the whole demand for coarse and medium weaves, leaving only the finer qualities to be imported from abroad, a fact of especial interest to Britain. Latterly attempts have been made to market the surplus Brazil cottons outside the Republic, but so far without much success. Hence it is possible that the mills will restrict their output, and that Brazil may become an important source of raw cotton. At present an average of 100,000 bales are yearly put on the foreign market, and with the high prices ruling in 1920 this quantity was valued at over £5 millions. The United Kingdom and France are buyers.

Another important industry is that of tanning; the millions of cattle supply cheap hides, the indigenous mangrove bark a cheap tanning material. There are also a very large number of tobacco factories and sugar mills, while in the greater cities miscellaneous manufactures are carried on, such as machinery, furniture and paper making at São Paulo, machinery and jute at Rio de Janeiro. The greatest number of cotton mills are at Rio, São Paulo, Pernambuco and Bahia. Matches, for which the Brazilian pine affords raw material, are made at Rio, São Paulo and Curityba.

Plans are maturing for the reduction of the abundant iron ores in the electric furnace, charcoal being obtainable from quick-growing eucalyptus trees, and hydro-electric power being employed.

With the exception, however, of certain classes of cotton and leather goods, Brazil must buy from abroad nearly all the manufactured articles in use in the country. There is a great demand for machinery and metal goods, and especially for motor cars and lorries, which can be used where railroads are wanting. China, glass, silk goods, furniture, wearing apparel, are all in demand, besides coal for industry and transport, although wood is very widely used as fuel. The Brazilian coal-fields occur in the uplands behind Porto Alegre and Rio Grande do Sul, and in Santa Catharina, but the output is still small (from 300,000–400,000 tons), nor is this coking coal. Before the War the United Kingdom held the most important place as a source of exports to Brazil, but Germany was then a serious competitor, and the United States had made rapid headway. The

## British Borneo.

latter country, with its big demand for coffee and rubber, was even before the War a purchaser of Brazilian goods to three times the extent of the United Kingdom, while the purchases of the latter country and Germany were approximately equal. The War cut out Germany entirely, and very considerably handicapped Britain, so that at present the United States, both as regards imports and exports, stands far ahead of its rivals. The trade of Brazil with the Argentine has also reached considerable dimensions. Havre (France) is an important market for Brazilian coffee, as are Antwerp, Rotterdam and Hamburg, since the continental demand for this commodity is very great. France is also a heavy purchaser of rubber, and French wines and manufactured goods have a considerable vogue in Brazil. Germany has, since the War, been paying great attention to market conditions in Brazil, and has re-established herself in many important lines, e.g., cement, wire, hardware, motor-cars, agricultural and other machinery.

The largest vessels can enter and leave Rio de Janeiro harbour at any time, and there are first-class port facilities. Santos harbour accommodates vessels drawing 26 ft. and has up-to-date facilities for rapidly loading coffee. At Bahia and Para there are also good deep harbours, but Rio Grande do Sul is approached across a somewhat dangerous bar, and the lagoon between this port and Porto Alegre is suitable for shallow draft vessels only. Steamers drawing up to 24 ft. can go up the Amazon river to Manaos, a distance of nearly 1,000 miles.

**General Information.**—The Portuguese language is everywhere spoken in Brazil, but the majority of the population is of mixed birth, the elements being Portuguese, Indian and Negro. The monetary unit is the gold *milreis*, with a par value of 27*d.*, and the metric system is in official use. The *libra* (pound), the *arroba* of 32½ lb. and the *quintal* of 129½ lb. are also employed.

The British Bank of South America, the London and Brazilian Bank, and the London and River Plate Bank, have branches at Rio de Janeiro and São Paulo, the two last-named at Para, and the London and Brazilian Bank at Porto Alegre. Mails reach Rio in seventeen days.

A British Consul General is stationed at Rio de Janeiro, and there are Consuls in all the large cities. Two Commercial Secretaries are attached to the British Legation.

## BRITISH BORNEO

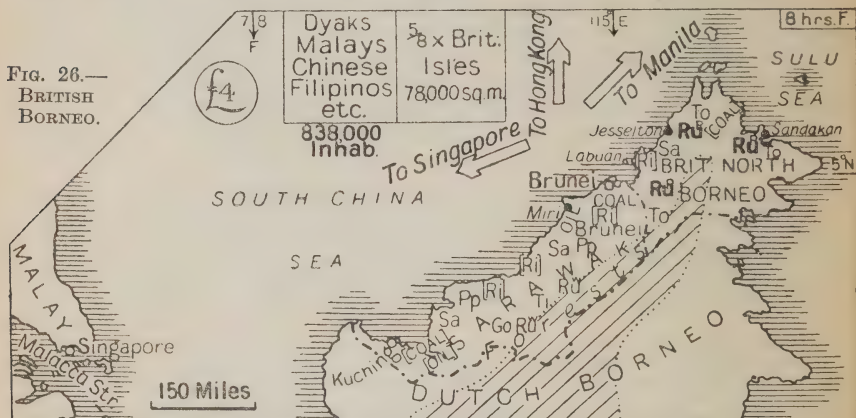
**Area and Population.**—British Borneo comprises British North Borneo, under the jurisdiction of the Chartered Company of that name, the territory being administered by a Governor; Brunei, administered by a British Resident at the court of the Sultan of Brunei; and Sarawak, governed by Rajah Brooke. The total area is about 78,000 square miles, and the population 838,000, of which the majority are settled along the coast, and by the banks of the rivers. The aborigines include the Sea Dyaks and many other pagan tribes, of whom those living in the interior are uncivilised. On the coast, however, there are tens of thousands of immigrant Chinese, besides Malays, East Indians, and Filipinos, who are cultivators, miners, plantation

## British Borneo.

labourers and traders, and on whom, therefore, the development of the country depends. Europeans number a few hundreds only, chiefly plantation owners and officials. Brunei, the chief town, built out over the water, has 10,000 inhabitants. The total trade has recently increased and averages over £5 millions (more than £6 a head), of which £3 millions represents exports.

### Position, Climate and General Physical Conditions.

—British Borneo comprises the northern and north-western parts of the large island of Borneo, extending inland as far as the main watershed, a mountain range rising in North Borneo to 13,700 ft. The western coast faces the South China Sea, the northern coast the Sulu Sea and Philippine Islands. The territory lies between latitude 7° N. and latitude 1° N., i.e. the climate is of the equatorial type, characterised by abundant rainfall nearly all the year round, and by uniformly high temperature. Dense



forests clothe the greater part of the country, and hunting is an important occupation among the tribes of the interior. In position and character British Borneo resembles Malaya, and is suitable for development on similar lines. The Rejang River, which flows through Sarawak, is navigable by large steamers.

**Human and Economic Conditions.**—The pagan tribes cultivate hill (unirrigated) rice and sago, keeping also a few pigs and poultry. The more civilised coast peoples cultivate (wet) rice, sago, pepper, coco-nuts, bananas, sweet potatoes, and so forth. Of these, **pepper** and **sago** were for long the staple articles of commerce, with in addition, *gutta-percha*, *timber*, *rattans*, *gambier*, and other forest produce. The Dyaks are usually fishermen, and mother-of-pearl (*cutch*) is also a considerable article of export. British planters at first directed their attention to **tobacco**, which is grown principally in North Borneo, and of which the export reached a value of over £¼ million. This product, like pepper and sago, has somewhat declined in output, since the country has been found suitable for the more profitable plantation **rubber**. The value of the yield of this commodity alone rose to £1 million sterling in 1917, i.e. half the total value of the export trade.



## British East Africa.

The country is also very rich in minerals, of which *gold* has long been worked by the Chinese. **Coal** exists in very large quantities in all three divisions of British Borneo, and is exported from Brunei. There are also very valuable **oil**-fields, that at Miri, in Sarawak, already yielding a surplus for export, the 1920 output being 1 million barrels.

**Trade Relations.**—The small ports of Sandakan (Sulu Sea), Jesselton, Brunei and Kuching trade with Manila, Hong-Kong and Singapore, which serve as entrepôts, so that the ultimate destination and source of commodities dealt with is not disclosed. The country offers a market for cotton piece goods, for food-stuffs (including rice and meat), for mining machinery, and for domestic necessities such as hardware, earthenware, and small metal goods.

**General Information.**—The unit of currency is the Straits Settlements dollar, value 2s. 4d., and the Government of North Borneo issues its own notes and copper coinage. There are branches of the Hong-Kong and Shanghai Banking Corporation, the Chartered Bank of India, Australia and China, the Chinese Commercial Bank and the Taiwan Bank at Jesselton and Sandakan.

Communication is usually by water and by bridle paths, in addition to the 127 miles of railway from Jesselton. There is an excellent telephone system, and wireless installations in the chief towns, which also by this means communicate with Singapore. Mails from London take about a month in transit.

## BRITISH COLUMBIA

See *Canada*, p. 123.

## BRITISH EAST AFRICA

**Area and Population.**—British East Africa includes Kenya Colony, the Uganda Protectorate, and Tanganyika Territory (formerly German East Africa), each administered by a Governor and Commander-in-Chief, and the Zanzibar Protectorate (ruled by an Arab Sultan), which is administered by a High Commissioner and a British Resident at the Sultan's court. The total territory covers about 741,000 square miles (more than six times the area of the United Kingdom), and has a population of nearly 10 millions, of whom over one third are in Tanganyika Territory. An important element in the population is the 55,000 Arabs and Indians, who are mainly settled along the coast. They form the wealthy and educated part of the community apart from the Europeans, and the bulk of the trade passes through their hands. The number of Europeans is about 11,000, and large areas are suited to European colonisation. The total trade of the region is about £14 millions, a figure which must steadily increase as the numerous development schemes come into effect. The most considerable towns are Mombasa, the chief port (30,000), Nairobi, the capital of Kenya (14,000), Entebbe and Jinja, (lake ports of Uganda), Zanzibar (35,000), and Dar es Salaam (Tanganyika).

**British East Africa.**

**Position and Climate.**—British East Africa extends from 5° N. latitude to 12° S. latitude, i.e. it lies entirely in the equatorial belt of the Continent. Hence the temperature is excessively high, especially on the coast, and in low-lying districts, but over about half of the interior it



FIG. 27.—BRITISH EAST AFRICA.

is very considerably modified by the height of the country above sea-level, and hence it is the interior (and therefore more difficultly accessible) regions that are suited to white settlement. Elsewhere, tropical fevers are prevalent, while sleeping-sickness has caused a heavy mortality among the native peoples of Uganda. The rainfall is seasonal in character, and only in a few districts is it very heavy, as for example along a narrow coastal strip

## British East Africa.

in Tanganyika Territory. In the northern and north-eastern areas of Kenya Colony there is a decided deficiency of moisture, and in parts of Tanganyika Territory there is also danger of drought. Uganda is on the whole the most favoured region, as being normally free both from excess and deficit of rainfall.

**General Physical Conditions.**—British East Africa includes the greater part of the lofty lake plateau of Central Africa, rising from 3,000 to 6,000 ft. above sea level, and dotted with great volcanoes (Kenya, Kilimanjaro, Elgon). In the centre and extending into each of the mainland, territories, is Victoria Nyanza, a piece of water 200 miles long and averaging 150 miles wide. The Nile flows out from its northern (Uganda) shore, to be broken almost immediately by the Ripon Falls; it then opens out into the shallow Lake Kioga, and is navigable to the Sudan frontier. The remaining lakes are of uniform type, long, narrow and deep, and bordered by high mountains. They include Lake Nyasa, on the southern margin of Tanganyika Territory, Lake Tanganyika on the western boundary of the same country, and Lake Albert on the western boundary of Uganda. The last named is also a feeder of the Nile. Lake Rudolf, between Uganda and Kenya Colony, lies in a somewhat dry region and has no outlet. The rivers flowing eastward from the plateau to the sea are of but slight commercial importance, although they may later be used for irrigation purposes.

Tropical forests are limited to the coastal belt and to scattered areas on the mountain slopes facing the rain-bearing winds, but they cover some thousands of square miles, and include valuable timber-trees. Much of the country is lightly wooded with acacia, cotton-tree and other timber, while on poor soils, and in the dry regions of Kenya Colony, there are tracts of thorn-bush and scrub. On the higher parts of the plateau, however, there is a rich savannah country, affording great stretches of natural pasture, or readily put under the plough.

**Human and Economic Conditions.**—In the coastal belt the native peoples are traders and agriculturists, since the tsetse fly makes cattle-rearing impossible. Among many tribes of the interior, however, cattle-rearing is the principal occupation, and there are many millions of cattle and sheep. Hence **hides** and **skins** are an important article of commerce. Cattle and sheep-rearing and ostrich-farming by Europeans are industries so far on a very small scale, but they are proving very successful in the right hands. As **maize** is a widely grown cereal in the European settlements (250,000 tons from Kenya Colony), it is suggested that European *pig-breeding* would prove successful, and this has commenced round Nairobi. At present **cotton** is the chief commercial crop of Uganda, the export in 1919-20 being valued at over £1 million. It is nearly all grown by natives on their own holdings, the chief district being round Lake Kioga. Along the coast belt this crop is also successful, although at present on a small scale. Fibres, notably *sisal hemp* and *flax*, take the lead in Kenya and Tanganyika (under German control the latter produced 16,000 tons of sisal), since they do not require a very heavy rainfall, and sisal does well on poor soils. The export amounts to over £ $\frac{3}{4}$  million. In each of the territories **coffee** has proved a successful and valuable crop in suitably selected locations, it being easy to handle where transport facilities are poor. It is a main crop of the European settlers. **Coco-nuts** are widely grown on the coast plains



**British East Africa.**

and in the islands of Zanzibar and Pemba, and the industry is capable of improvement and development. The prosperity of the two islands named depends, however, in the first instance, on the **clove** industry, since they yield the bulk of the world's supply of cloves—29 million lb., worth over £ $\frac{1}{2}$  million in 1919. The cultivation of *rice* on the lowlands and of *sugar* could be extended, and a plateau industry of increasing importance is the growing of *wattle-bark* (11,000 acres). The *ceara rubber* industry was well established by the German planters, but this variety commands a relatively low price, and in the present state of the market is not profitable. The *Para rubber* plantations of Uganda are doing well. The whole region appears deficient in minerals, save for the natron (*sodium carbonate*) deposits occurring on a large scale in Kenya Territory, which are exploited in the Lake Magadi depression.

There is an abundance of native labour in East Africa, although there is some difficulty in attracting the Africans to the farms and plantations. There is a decided deficiency as regards communications. The principal railway is that from Mombasa, through Nairobi to Kisumu (Port Florence) on Lake Victoria, known as the Uganda Railway. This is the outlet for Uganda also, since there is a break of 89 miles between the navigable waters of the Nile within that territory and the highest point (Rejaf) reached by the steamers from Khartum. The railway from Dar es Salaam to Kigoma on Lake Tanganyika is chiefly of military importance, since except for the first 100 miles it passes through undeveloped regions. There is, however, some transit trade from the Belgian Congo. A smaller line runs from the port of Tanga to Moshi, tapping the plantations of the Usambara highlands, and a branch from the Uganda Railway now connects with this line. There are fairly good roads in the settled districts, and motor-cars and lorries are in increasing use in place of bullock wagons and porters. These roads are impassable during the rains. Some 50 miles of road-rail track (for tractors) have been completed in Uganda. The new motor spirit, natalite, is to be manufactured in the Kenya Territory.

**Trade Relations.**—The trade of British East Africa is chiefly with the United Kingdom and with India. The latter country sends cotton piece goods, rice, gunny bags, ghee and miscellaneous articles and food-stuffs for native trade, Zanzibar doing a considerable business in Indian goods, while most of the products of Tanganyika are shipped outwards via Zanzibar or Mombasa. Articles largely imported in addition to cottons and rice are sugar, groceries, beverages, tobacco, grain and flour, besides drapery, boots and shoes, and a great variety of manufactured goods for the European and other civilised sections of the community, including machinery and other material for development. While manufactures are supplied mainly from the United Kingdom and India, the United States and the Union of South Africa have obtained some footing in East Africa—Cotton (mostly from Uganda), hides and skins, fibres (mostly sisal from Tanganyika), coffee (from all three territories), copra, millet, and carbonate of soda (from Kenya Colony) are the major exports, ground-nuts, simsim, beeswax and wool forming small items in addition.

Zanzibar has an excellent harbour, visited by large mail steamers, but goods must be lightered both here and at Mombasa. The latter has two harbours, and at the second, Kilindini, deep-water berthing will be provided by June, 1924, thus eliminating lighterage charges.

## British Guiana.

**General Information.**—The currency of British East Africa is based on the Indian rupee, but British sovereigns and East African currency notes are also legal tender, with copper *pice* up to one rupee in Zanzibar. In 1919 (when the value of the Indian rupee had greatly appreciated) the value of the rupee in East Africa was fixed at 2s. Since this shortly exceeded the natural exchange value, the result has been considerable dissatisfaction among East African farmers and traders. The 2s. rupee is now called the florin. The National Bank of India, and the Standard Bank of South Africa have branches in the principal towns, including those of Tanganyika Territory. The telegraph systems are connected with Zanzibar, whence there are cables to Europe, via Aden or Durban. There are wireless stations at Zanzibar, Dar es Salaam, Mwanza and Bukoba (the last two being lake ports on the shores of Victoria Nyanza). Mails reach Zanzibar in four weeks (via Aden). There is an Imperial Trade Commissioner at Nairobi, and there are Trade Correspondents at Mombasa and Dar es Salaam.

## BRITISH GUIANA

**Area and Population.**—The Crown Colony of British Guiana has an area of 89,000 square miles, that is to say it is slightly larger than Great Britain. The population is about 314,000, of whom nearly half are East Indians. There are also negroes, Portuguese, Chinese, and a few thousand people of British birth. The importance of the colony may be judged by the fact that the foreign trade of £7½ millions works out at £25 a head, the exports being considerably in excess of the imports.

**Position and Climate.**—British Guiana is on the north-east coast of South America, facing the North Atlantic Ocean, and nearly 4,000 miles from the British Isles. It lies wholly within 10 degrees of the Equator, and hence is uniformly hot throughout the year; but on the highlands of the interior the heat is tempered by the elevation as in Uganda. Heavy tropical rains fall on the coastal belt during the greater part of the year, although droughts are not unknown. The highlands are somewhat drier, the principal rains falling in the summer months.

**General Physical Conditions.**—The Guiana highlands, which form the interior of the country, descend gradually towards the north to a broad coastal plain, which is fringed by mangrove swamps. The river Essequibo rises in the extreme south, on the boundary of Brazil, and flows due north to the sea, cutting a wide valley in the highlands. It is joined by the Cuyuni, a tributary coming from the highlands of Venezuela to the west. Parallel to the Essequibo, but rising nearer the sea, are the rivers Demerara and Berbice, both of which are navigable for some distance inland. The hot wet coastal plain is clothed with dense tropical forest, including a number of hardwoods, palms and creepers. The highlands are a typical savannah country, consisting of well-timbered grasslands, such as occur, for example, in Nigeria and in the highlands of Brazil.

**Human and Economic Conditions.**—The staple industry of British Guiana is **cane-sugar**, which is grown on the coastal lowlands, the plantations covering nearly 80,000 acres. The surplus for export is







## **British Honduras.**

which might become large scale industries, if the labour and transport difficulties were met.

In the virgin forests gum *balata* is collected, the export being valued at £200,000, and there is a small export of *timber*, including the notable greenheart, a wood peculiarly suitable for constructions under water.

The interior highlands offer scope for development on different lines to the coast plain. For over thirty years they have yielded a steady output of *gold* and *diamonds*, and the mining industries could be greatly extended by the construction of a railway to the interior. Manganese and aluminium (*bauxite*) ores, for example, are known to exist in great quantity, and the exploitation of the latter is begun. Apart from mining, the upland savannah would make an ideal cattle country. Already there are over 100,000 horned cattle in British Guiana, and there is every possibility that the local needs for meat products could be fully supplied, and a continually increasing surplus remain for export.

**Trade Relations.**—Over three-quarters of the produce of British Guiana is divided between Great Britain and Canada, the latter being a large purchaser of sugar. The imports include great quantities of food-stuffs—flour, meat products, butter, fish—which are supplied from the United States and Canada: for the plantations there is also a demand for manures and machinery, both of which America can supply, and there is a general demand for miscellaneous manufactured goods for domestic use, for clothing, and for textiles. The last named come mainly from Britain, but the War has enabled the United States to capture much of the import trade. Thus the States supplied 40 per cent. of the total in 1917, as against Britain's 30 per cent., and 13 per cent. from Canada.

**General Information.**—Accounts in British Guiana are kept in dollars and cents, and dollar notes of various denominations are issued by the Royal Bank of Canada, the Colonial Bank and the Government. British gold and silver are also in circulation. Mails reach British Guiana in 22 days. The Comptroller of Customs acts as Imperial Trade Correspondent.

## **BRITISH HONDURAS**

**Area and Population.**—British Honduras is a Crown Colony administered by a Governor who is Commander-in-Chief. The total area is 8,600 square miles (rather larger than Wales), and the population 42,000, mainly coloured. Of these nearly a quarter, 10,500, live in the chief town and seaport, Belize. The average trade in 1918–20 was about £1½ millions, or £36 a head, and these figures were unduly low, owing to lack of shipping and the severe influenza epidemic of 1918. Even so the *per capita* trade is higher than in the West Indies in general, but this is owing partly to the fact that the staple products are almost entirely for export, with little local consumption, while part of the trade represents goods in transit to and from the bordering districts of Mexico and Guatemala, and from the Republic of Honduras, for which Belize serves as an entrepôt.<sup>1</sup>

<sup>1</sup> For Map see Guatemala.

**General Physical Conditions.**—British Honduras lies on the western shore of the Caribbean Sea, between latitudes 16° and 18° N., i.e. it is entirely tropical. The coast runs from north to south, and the prevailing north-east trade winds, blowing in from the sea, bring a heavy rainfall, especially in summer. Hence the coast plain is clothed with dense tropical forest, and is unhealthy and thinly peopled. Towards the western boundary the elevation increases to over 3,000 ft., and here there is a healthy open country with natural pastures.

**Human and Economic Conditions.**—The staple product of British Honduras is **mahogany**, of which the export is valued at about £200,000, although the quantity cut, for reasons already stated, is at present far short of the pre-war output. The same is true of the second leading commodity, **chicle** (for chewing gum), of which a part comes from the neighbouring States, bringing the 1919 export up to £436,000. The secondary forest products are *cedar* and *logwood*, but plantations have been established which should be of increasing importance. At present the most valuable are those of **bananas** and **coco-nuts**, but cacao and coffee also do well, and cassava is cultivated. The interior highland region is suitable for cattle, but at present there is an import of beasts from Honduras, for British Honduras lacks internal transport facilities (25 miles of railway only).

The direction of trade is determined by the proximity of the Colony to the United States. This country takes over 70 per cent. of the exports, and furnishes over 50 per cent. of the imports, including both food-stuffs and manufactured goods. The second largest share of imports comes from Honduras, which supplies besides cattle, some rice, sugar and tobacco. The United Kingdom supplies about 10 per cent. of the imports, chiefly cotton textiles. All goods must be lightered at Belize, the only port.

**General Information.**—British Honduras, in common with the British West Indies, has entered into a reciprocal tariff agreement with Canada, and the latter is establishing a fortnightly passenger, mail and freight service. The Royal Bank of Canada is established in Belize. Accounts are kept in dollars and cents and the United States gold dollar is the standard of currency, while British gold is legal tender at a fixed rate of exchange. Foreign cables are sent via Mexico, and there is wireless communication with Jamaica and New Orleans. Mails reach Belize in 17–20 days. The Colonial Secretary at Belize acts as Imperial Trade Correspondent.

## BRITISH ISLES

**Area and Population.**—The Kingdom of Great Britain and the Irish Free State have an area of 121,600 square miles, and a population which may be estimated at 47 millions, no census of Ireland being taken in 1921. Of these, some 7½ millions live in Greater London (the Metropolitan Police Area), which is the largest and most important city in the world. The position of London, at the head of the Thames estuary, and at the lowest bridge point of that river, reflects the early importance of British trade with the Continent, and at the same time (since it is very centrally placed as regards the richest English agricultural regions) recalls the fact that previous to the Industrial Revolution, the prosperity of the country





*British Isles.*

was based on farming. The same conditions held good in Scotland, where the historic capital city, Edinburgh, with rather over one-third of a million people, lies near the east coast, in the fertile Lothians. Dublin, with a population of 400,000, from which the conquered Irish were formerly governed, naturally lies on the east coast of Ireland, at a point easily reached from England. The fact that the coal-fields lie for the most part to the west, and that America now bulks hugely in world trade, has led to the modern growth of great cities distant from London. On the estuary of the Clyde some 1½ millions of people live in Glasgow and the adjacent boroughs and towns: on the estuary of the Mersey over 1 million people live in Liverpool, Birkenhead and their near neighbourhood. Bristol, on the third great westward opening estuary, is less favoured as regards its hinterland, and less conveniently placed for trade with the second world city, New York; it has under ½ million inhabitants, and is exceeded in importance by several inland centres. The twin towns of Manchester and Salford, possessing many of the advantages of Liverpool (the Ship Canal prolongs the Mersey estuary), have in the aggregate over a million inhabitants, Birmingham approaches the million figure, while Leeds and Sheffield have each somewhere about half a million people. The cities of the next group to be enumerated have each ¼ million inhabitants, more or less: they are Bradford, Newcastle, Nottingham, Hull, Leicester, Portsmouth, Cardiff and Stoke-upon-Trent. Belfast, the only great industrial centre in Ireland, conveniently placed to draw upon the coal resources of Scotland, has rather under 400,000 people. All the cities mentioned have a world reputation, and are associated with one or other of the various activities upon which British prosperity is based: shipping, shipbuilding, iron and steel, textiles, coal export, earthenware, or general trade.

Of employed males in England and Wales in 1911, 70 per cent. were classified as engaged in industrial or commercial work (including mining and transport), and only 10 per cent. as engaged in agriculture or fishing. In Scotland, there is the same disproportion, 80 per cent. in industry or commerce, and 13 per cent. in agriculture or fishing. In Ireland, on the other hand, over 50 per cent. were working on the land, and under 40 per cent. in industry or commerce, but as the total population of Ireland is under 4½ millions and is declining, these figures do not redress the balance in favour of industry. In consequence, Britain must buy the bulk of her cheaper foods and most of her raw materials abroad, and pay for them with manufactured goods. Hence her great need to capture and hold foreign markets at the expense of German and American competitors, and to have command of the seas. Such a general statement must, however, be qualified, and it should be noted that the iron and steel industry is largely based on home supplies of material, that there is a large surplus of coal to sell abroad, that Britain holds a leading position as regards her merchant navy, and that British people have much capital employed in foreign enterprises, and perform world-wide services as bankers, brokers and insurance agents: as a consequence, this country is in a position to draw supplies from abroad of which the value is far above that of the manufactures which she sells. The home market for British manufactures is a very important one, and the prosperity of industry depends largely upon the effective distribution of purchasing power among the mass of the home population.

Among the assets of the British manufacturer must be reckoned his

## **British Isles.**

high reputation for fair dealing, and for producing goods of superior quality and durability, since he has at command workers who are noted for their skill and intelligence ; on the other hand such workers demand high wages, and although the higher the wage scale, the more prosperous the community, yet it is necessary to ensure, by organisation and efficiency, that prices remain at a competitive level. It is generally accepted that British industry is at a disadvantage in so far as the clerical workers are not thoroughly educated, and have opportunities for acquiring foreign languages inferior to those on the Continent, where, too, science holds a more important place, and the application of science to industry is more widespread than in this country. The best-trained brains in Britain have hitherto gone into administration or into the learned professions, and although this state of affairs is slowly altering, it is broadly true that business men lack theoretical and scientific knowledge, while the governing classes lack knowledge of practical everyday economic facts. Hence, for example, taxation disastrous to industry, and restrictions such as that until recently obtaining on the manufacture and use of power alcohol.

The average foreign trade of the British Isles previous to 1914 was £1,300 millions, or £28 a head, the imports representing  $55\frac{1}{2}$  per cent. of the total and exports  $44\frac{1}{2}$  per cent. The difference of 11 per cent. was made up by the "invisible exports" already mentioned. An average of rather more than £100 millions represented colonial and foreign goods imported for re-export, i.e. entrepôt trade. In 1920 the estimated total was £3,500 millions, or £74 a head, the percentage of imports and exports (including transit trade) being 56 per cent. and 44 per cent. respectively, and the difference nearly £400 millions.

According to Board of Trade estimates this technically adverse balance is still amply covered by the "invisible exports." Taking the net income from private investments abroad before the War at £200 millions, this figure has fallen to £120 millions. Banking and other services total £40 millions, while shipping services reach the enormous figure of £340 millions, giving a net total of over £500 millions to set against the "adverse balance" of under £400 millions.

The early part of the year 1920 was, it will be remembered, a "boom year" in the shipping industry, while 1921 showed a very serious "slump" all round. The total trade for 1921 was only £1,790 millions, or just over half that of 1920, yet imports were in excess by £382 millions. The apparent increase of trade since 1913 is due, of course, to inflated prices. Roughly these reached three times as great on an average as in the pre-war years, so that dividing the total for 1920 by three we arrive at a value of £1,100 millions, or £23 per head, which is 82 per cent. of the 1913 total. A comparison of the relative weights of merchandise exported in the two years specified gives approximately the same result. In view of the fact that there was a very large expansion of industrial plant during the war years, this figure indicates a production far below capacity—both as regards machinery and men. During 1921 wholesale prices dropped rapidly, so that falling trade returns, as shown by values, were partly due to this cause, but according to the Board of Trade, taking price level into account, the exports were 20 per cent. less than in 1920, and barely half those of 1913, while imports were three-fourths, and re-exports rather more than three-fourths those of the last pre-war year.



### **Position, Climate and General Physical Conditions.**

—The British Isles lie on the north-western border of Europe, facing the Atlantic Ocean, between latitudes  $50^{\circ}$  N. and  $60^{\circ}$  N., i.e. on the whole farther north than the main centres of world population. The type of climate is that known technically as “cyclonic,” although the cyclones experienced in Britain have only this in common with violent tropical cyclones, that both are advancing circular storms bringing in their train a rapidly changing sequence of winds. These winds coming in turn from all points of the compass bring the proverbially changeable British weather, which is of the type most uniformly stimulating to activity, and prepares the Englishman to endure without loss of health a great range of climates abroad. The general movement of the air currents is from the west and south-west, whence the “cyclonic” storms come; and the slow drift of warm water past the shores, and of warm oceanic winds across the lands in winter, keeps British harbours open at all seasons, and keeps the surrounding seas free from the dangers of drifting ice, so that the high latitude of the country is no disadvantage. The rainfall is naturally heavier on the west than on the east, and the difference is accentuated by the fact that the upland areas lie to the west and the plains to the east. Hence the rainfall varies from over 100 in. in some mountain districts to a bare 20 in. in parts of East Anglia.

Within the small compass of the islands there is a considerable variety not only of climate but of topography. Ireland is largely an ill-drained plain, dotted with lakes and peat-bogs, and crossed by the sluggish Shannon. In the north-west and south-west respectively lie the wild, but beautiful mountains of Donegal and Kerry, while to the east lie the more smoothly rounded Wicklow Mountains, and the basalt plateau of Antrim. In Scotland three well-marked divisions stand out: the Highlands, clothed with cotton-grass moor towards the wetter west, and with heather-moor towards the drier east, whence they sink to a marginal plain; the Southern Uplands, covered almost everywhere with natural pasture, varied by ling, gorse, bracken and heather, and between these two the Central Lowlands, into which four-fifths of the population is crowded. Even the Lowlands are interrupted by hills, but they contain the richest agricultural land, as well as the coal-fields, while they are penetrated by three great estuaries, the Firths of Tay and Forth on the east, of Clyde on the west, so that communication coast-wise or over-seas is everywhere easy.

Running southward from the Southern Uplands of Scotland is the broad belt of the Pennine Chain, covered with pasture and moor, separating the plains of Lancashire and Cheshire on the west, long ill-drained and boggy, from the rich Vale of York on the east, an agricultural region which was early in high repute. Hence the ancient and historic city of York arose, unmatched on the other side of the Pennines, but since coal occurs on either flank of the Chain, great industrial cities have latterly sprung up both to the east and to the west, often in the very heart of heather-clad hills.

Access to the Lancashire Plain is by the Midland Gate, the broad opening between the high mass of the Peak District (the Southern Pennines) and the great block of ancient rocks which build the Cambrian Mountains of Wales. Through the Midland Gate pass numerous railways which converge on Crewe and then spread out fanwise once more. The Welsh Upland is flanked to north and east by small coal-fields, but the greatest field, rich in steam coal and anthracite, lies to the south, conveniently placed between



## British Isles.

the mountains and the sea. The Welsh Uplands, like the Scottish Uplands, are clothed with natural pasture and form a great sheep walk, while on their margins are many valleys and minor plains suited for cattle.

Sheltered somewhat by the Welsh Uplands, the Midlands have yet a sufficiently abundant rainfall to make an excellent grazing ground, while in many places the rich red loams and clays that cover them are pierced by older rocks bearing coal. A belt of limestone running from Portland Bill to the mouth of the Tees, and bearing at many points valuable iron ores, serves as a rough boundary of Industrial England, for to the south and east of it, apart from the Metropolis, agricultural interests predominate. The Plains lying about the Wash, including the rich Fen lands; the Weald of Sussex, Surrey and Kent; the Thames Valley; the Hampshire Basin; all are noted for farming in some aspect or another. Chalk, clay, sand and alluvium build up this region, and a useful range of mixed soils of varying composition is the result. Lying to the west of the limestone band, and still noted for mining activities (although these were more important in former days) is the Devon-Cornwall Peninsula, where great bosses of granite and slate build the famous moors. Sharply contrasted with the bleak and often misty uplands are the sheltered sunny valleys, where, especially on the South Coast, is a climate milder than any found elsewhere in Britain.

The Channel Islands (Jersey, Guernsey, Alderney and Sark), lying across the English Channel off the coast of Normandy, and the Scilly Islands, lying south-west of Land's End, enjoy an almost complete freedom from frost and severe weather, and as the ancient rocks of which they are built have weathered to a deep fertile soil, they have an agricultural value which is out of all proportion to their total area of less than 100 square miles.

**Human and Economic Conditions.**—In Great Britain (excluding Ireland) agriculture is of subsidiary importance, the cultivated area being about  $32\frac{1}{2}$  million acres, or about  $\frac{3}{4}$  acre per head of population, whereas in the United States it is over 5 acres per head, and in France  $2\frac{1}{2}$  acres. In Ireland, with a declining population, it is  $3\frac{1}{2}$  acres per head, and as Irish produce comes practically entirely to Great Britain, this brings the average up, so that for every person in the British Isles the produce of very nearly an acre of land is available. Of the cultivated area, less than half is under crops, i.e. is employed at its maximum food-producing capacity, the greater part being under grass, since the most profitable lines of farming are dairying, breeding and fattening beasts and sheep for the butcher, and the rearing of pedigree stock. A certain amount of pasture was broken up during the War, but is reverting again to grass. Even the arable land is not farmed to capacity, and according to the Board of Agriculture, the German farmer was producing 50 per cent. more food on an average per acre than the English farmer, largely owing to a more generous use of chemical manures and a different selection of crops. The latest figures show a consumption of  $1\frac{1}{2}$  million tons of fertilisers, but it is estimated that this figure could be doubled with advantage, given the requisite capital and labour. There are ample stores of sulphate of ammonia (from gasworks and coke ovens) in the country, besides basic slag (from open hearth and Bessemer furnaces), while cheap nitrates from Chile and phosphates from North Africa are obtainable now that normal conditions are being restored.

As regards the distribution of crops, **wheat** attains its maximum importance in the drier and sunnier eastern plains, including the Lothians and

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Fifeshire in Scotland, and the counties between the Humber and the Thames estuary in England : *hay*, *roots* and *oats* attain a greater importance in the Midlands and the west, where it is wetter and milder. Very little wheat is grown in Ireland, whereas the land under hay is over half that in the whole of Great Britain. **Barley** (for the breweries) occupied in 1913 a greater area than wheat, and although the crop declined slightly in favour of wheat and oats during the War, it is resuming its importance as being more profitable. **Oats**, which will grow well in wetter and cooler regions than wheat or barley and on poorer soils, cover the greatest acreage, overwhelmingly so in Scotland, Ireland and Wales, although in England itself they take only the third place. **Potatoes** for the London market are grown mainly in Lincolnshire and the Fen Country ; for the industrial districts they are grown in Cheshire and South Lancashire ; and for Scotland in the Central Lowlands. Irish potatoes are widely grown all over the country : they are cultivated for export particularly in the north-east.

*Market gardening* is profitable in the neighbourhood of the large towns, and *fruit* growing is important where favourable conditions of soil, climate and market are combined. Sandy soils, which are warm and dry, are most suitable to small fruits, while a sheltered position, and the neighbourhood of a body of water which checks sudden frosts, are desirable for orchards. The vale of Strathmore, the Carse of Gowrie, and Clydesdale fulfil one or other of these conditions in industrial Scotland, the Vale of Evesham serves the Black Country, while London draws on the Hampshire Basin, Essex, Herts and Cambridgeshire for small fruits, and also on the more famous Kentish orchards and strawberry gardens. During the War the bulk of this fruit went to the jam-makers, who also import large quantities of pulp from Holland, France and Spain. The unusually mild winter climate of the Channel Islands, Scilly Islands and Southern Cornwall allows their inhabitants to specialise in early or delicate vegetables (e.g. new potatoes and tomatoes), grapes, and spring flowers (narcissus, etc.), but these also are drawn in larger quantity from abroad. In 1919 the value of imported fresh vegetables was £9 millions, and of flowers £200,000.

**Flax** is grown over a limited area in North-east Ireland, especially in the Lisburn district, but supplies only a fraction of the demands of the linen industry. Some 60,000 acres were cropped in 1913, producing 10,000 tons, and the figure rose to 143,000 acres in 1918 (the highest since 1880), but subsequent years have shown a rapid fall, in spite of the continued absence of Russian flax.

The British Isles are one of the most important **sheep**-breeding countries in Europe, since the upland pastures of Scotland, England and Wales afford fine sheep walks ; the chalk and limestone belts running across the plains are also very suitable, and the saltings (reclaimed marsh lands) round the Essex and Kentish coasts and elsewhere carry large numbers of these animals. Ireland, with its wetter climate, is less suitable than Great Britain for this branch of farming, and has only  $3\frac{1}{2}$  millions of the total of 25 millions (1919) for the whole country. The pre-war total was  $27\frac{1}{2}$  millions, and the years 1920-21 will apparently show a recovery of numbers. The wool produced is about 122 million lb., or more than one-eighth of the home consumption.

Horned **cattle** are most numerous in the plains and valleys of the Midlands and the West country (including Ireland), since they thrive best on the wetter and richer pastures, and can remain in the fields during the mild winter.



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Of a total of  $12\frac{1}{2}$  millions, there are 5 millions in Ireland, i.e. a proportion of 40 per cent. Milch cows are important everywhere, and in those districts beyond easy reach of the large centres of population consuming fresh milk, there are creameries where butter, dried and condensed milk are manufactured. As regards **pigs**, the total is about 3 millions, of which one-third are in Ireland, the disproportion being very great when it is remembered that the population of Ireland is less than one-tenth that of Great Britain. Horses (other than those in use in towns) number 2 millions, of which again one-third are in Ireland. It is clear therefore that as regards animal industries the latter country plays an important part, and there is a large export of fat stock and of store animals across the Irish Sea to Great Britain. In 1919-20 the total was over  $1\frac{1}{2}$  millions, including  $\frac{1}{2}$  million fat cattle, and  $\frac{1}{3}$  million stores,  $\frac{1}{4}$  million sheep and  $\frac{1}{3}$  million lambs, besides nearly 200,000 pigs, and tens of thousands of horses. Thus Ireland is a very important source of meat to Great Britain. Much of this traffic is from Dublin to Liverpool or Holyhead, and from Waterford to Fishguard, but Londonderry, Belfast, Cork and other ports are also points of departure for the cattle-boats.

In addition to the export of live animals, Ireland does a large trade in dairy produce. The value of the **butter** exported (mainly to Great Britain) is round about £5 millions annually, the establishment of Co-operative Creameries enabling the producers to compete with the Danish product. **Bacon** and **hams** to the average of £4 millions yearly (involving the slaughter of a million pigs) have been sent out of the country, besides a very large total of **eggs** for which figures are not available, and here again Ireland is in competition with Denmark. The latter, however, still does by far the larger trade with the British Isles, although it is only half the size of Ireland, has a smaller population and is at a disadvantage both as regards climate (the winters are more severe) and distance. Superior education, enterprise, organisation and transport facilities are in Denmark's favour. In 1920 the money spent by Britain on foreign butter, cheese and eggs was over £63 millions.

The *fisheries* of the British Isles are an important home source of food, and furnish an article of export. The pre-war value of £10 millions for the catch has increased to about £25 millions, but the quantity of fish landed in Scotland has shown a great decrease which is not equalled by the small increases in the English and Irish fisheries. The Irish are relatively unimportant, since the best fishing grounds are in the North Sea, and facilities for rapid marketing in the industrial centres are organised in connection with the East Coast ports, e.g. typically at Grimsby. The **herring** fisheries are the most important, the quantity of fish sold fresh being exceeded by that which is cured: cured herrings are largely exported to the Continent (over £2 millions in 1919). Cod, hake, mackerel, haddocks, whiting, plaice, turbot and sole are among the chief fish also landed. The inshore shell-fisheries (including lobsters, crabs, and oysters) have a value of about £ $\frac{1}{2}$  million. In addition to consuming the home supply, Britain offers a large market for imported tinned fish, particularly salmon and sardines, valued at over £10 millions in 1920.

The *mineral* wealth of the British Isles consists above all in **coal**; these mines employing over a million persons. The value of the output (at the pit-head) was £145 $\frac{1}{2}$  millions in 1913, the value of the export in the same year



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being over £50 millions. The output in 1920 was some 229·3 million tons, or 58 millions of tons short of that in the last pre-war year, while the export was only one-third the normal: a very serious state of affairs which was



FIG. 30.—BRITISH ISLES : MANUFACTURES.

continued in 1921. The United States output is approaching three times that of the British Isles, and in that country, owing to the vast reserves (ten times as great as the British), only the easily accessible seams are

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being attacked, with the result that the output per miner is very high. Details of the 1919 export show that  $35\frac{1}{4}$  million tons of British coal were shipped abroad, together with  $1\frac{1}{2}$  million tons of coke and nearly  $1\frac{1}{2}$  million tons of patent fuel, while 12 million tons of bunkering coal were taken on by foreign ships. This was equivalent to 51 million tons of coal in all. The total manufacture of **coke** in the same year was  $19\frac{1}{2}$  million tons, for which 35 million tons were put through the ovens. Durham has the greatest number of coking ovens, although quite half are of the wasteful beehive type, whereas in Yorkshire over two-thirds are of more modern types which recover over 80 per cent. of the valuable by-products. There has been an enormous improvement in this respect, so that nearly 70 per cent. of the coal now goes into by-product ovens, as against about 40 per cent. before the War. But the German percentage is probably over 90, while although in America only half the ovens are of the best type, the fact that in all  $56\frac{1}{2}$  million tons of coke are manufactured makes the supply of coal-tar products an ample one.

The greatest export of coal is from South Wales—Cardiff, Newport, Swansea and Port Talbot together accounting for 50 per cent. of the total; the ports of Northumberland and Durham, i.e. Tyne Ports, Blyth, Sunderland and Hartlepool, account for another 30 per cent., while less than 8 per cent. goes from the Scottish ports, and comparatively little through Liverpool and Hull from the Lancashire and Yorkshire fields. France and Italy are normally the most important customers for British coal, followed by the Scandinavian countries, Gibraltar, and Egypt.

South Wales produces the valuable smokeless steam-coal, and also the bulk of the British output of anthracite, which amounted to  $4\frac{1}{2}$  million tons in 1919. Neither of these are coking coals. Swansea, Cardiff and Newport are the main centres of patent fuel manufacture, the small coal and dust being bound up into briquettes by means of coal-tar pitch. Nearly 2 million tons, worth £4·8 millions, were manufactured in 1919, but in 1921 the industry was stagnant.

**Iron** ore ranks next to coal in point of value, but the home supply of some  $14\frac{1}{2}$  million tons is insufficient to meet national requirements, and is supplemented from Spain, Algeria, Sweden and elsewhere. In 1919 only  $12\frac{1}{4}$  million tons were produced in Britain and  $5\frac{1}{2}$  million tons were imported, while nearly 19 million tons were used in the furnaces, so that reserves were seriously depleted. About 80 per cent. of the ores come from the ironstones associated with the belt of Jurassic limestone which runs across England from Portland Bill to the mouth of the Tees. These are basic ores. The Cleveland Main Seam is the most important mining district, with Middlesbro', favourably placed on the Tees estuary for receiving coal, as the smelting centre. The outcrop practically disappears in South Yorkshire, but in North Lincolnshire the Frodingham Bed is worked, and in South Lincolnshire, Rutland and Northamptonshire, the so-called Northampton Bed—Wellington and Kettering being large smelting centres. The North Lancashire mines behind Barrow-in-Furness yield hæmatite ores, and account for 10 per cent. of the total. Only 8 per cent. now comes from the coal measure ironstones, e.g. on the Lanarkshire coal-field, and the remaining 2 per cent from miscellaneous sources.

The output of *pig-iron* from British furnaces in 1913 was  $10\frac{1}{2}$  million tons, and of *steel*  $7\frac{1}{2}$  million tons, blast-furnaces being most numerous in the

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Cleveland District, West Riding (Sheffield and Rotherham), South Staffordshire (Birmingham and Black Country), South Wales (Merthyr Tydfil, Ebbw Vale) and Lanarkshire (Scotland). During the war the pig-iron output diminished, and in 1919 was only  $7\frac{1}{2}$  million tons: in the latter year only 279 out of 490 furnaces were in blast, as compared with 359 furnaces producing 39 million tons of pig-iron in the United States. It will be noticed that the American output per furnace is four times as great as the British—a decided economy; while similarly more than twice the quantity of coal is put through each coking oven. Germany normally produced nearly twice as much pig-iron as Britain, but the figure was reduced to  $5\frac{1}{2}$  million tons in 1920, since the main supplies were from the regions now annexed to France. The steel output in Great Britain increased during the War owing to the large-scale use of scrap iron: the figure for 1917 was 7.9 million tons, and for 1920, 9 million tons, while in the latter year pig-iron showed an improved output, reaching 8 million tons. The German steel output for 1920 was  $7\frac{3}{4}$  million tons.

**Tin** ore is mined in Cornwall to the value of over £1 million annually, but the quantity of imported ore and metal (from Singapore and Bolivia) is twelve times as great. Similarly a little **lead** is mined in Cumberland, Durham, Flintshire, the Derbyshire hills, and the Southern Uplands of Scotland, but the home supply is barely a twentieth of the country's needs, and very many of the mines are on the margin of production, their working depending on the current price of the metal. The copper and zinc output is also insignificant.

Of non-metallic minerals *clay* for brickmaking and coarse earthenware, *kaolin* (from Devonshire and Cornwall) for porcelain, *limestone* and *chalk* for cement-making, *sandstone* (for building), *slate* (especially from North Wales for roofing), and various hard rocks for road metalling are sufficiently abundant for all local needs. The **oil-shale** industry is important in East-central Scotland, the 1919 output being  $2\frac{3}{4}$  million tons, worth £1½ millions, and yielding 55 million gallons of oil ( $1\frac{1}{2}$  million barrels) and 50,000 tons of sulphate of ammonia. The Portland **cement** industry is important wherever a navigable waterway cuts through chalk or limestone hills, e.g. at Rochester on the lower Medway, and from such points the product is readily shipped abroad. The abundant deposits of **salt** are also a valuable national asset, this mineral occurring in the belt of red (Triassic) rocks which runs in a great horseshoe round the Pennines, southward through Lancashire and Cheshire, across the Midlands, and thence northwards to the Tees-mouth and Durham. Cheshire, with the Weaver valley, is the most notable brine-pumping district (Northwich, Nantwich, Middlewich), but salt is exploited also in Staffordshire, Warwickshire, North Yorkshire and Durham.

The abundance of salt and limestone near the English coal-fields has led to the manufacture of *heavy chemicals* at points where the import of sulphur or pyrites (in which the country is unfortunately lacking) is easy: Italy produces sulphur, Spain and Norway pyrites: hence the great chemical works of Runcorn, Widnes, Middlesbrough, Newcastle, and the Midlands. Pharmaceutical products were increasingly made in Britain during the War, but the superior knowledge of technical processes which the Germans possess, and their greater command of raw material, make effective competition difficult. Since soda (from salt) is employed in the manufacture of **glass**, this industry is located in the same districts—South Lancashire, the Mid-



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lands, Durham—as the chemical industry. The British glass-maker, however, feels Continental competition very keenly, Belgium, Germany, Czechoslovakia (i.e. Bohemia), Holland, Sweden and the United States all doing an export trade in various types of glassware, including both fine and coarse qualities. Plate and sheet glass, bottles, table and fancy glass, electrical bulbs and optical glass are all produced in this country, but except as regards high-class hand-made glassware, the British manufacturer is not in a strong position. In this industry again the research chemist has an important part to play, and recently the American glass-makers have been able to put a new type of fire-proof glass ware for cooking on the market. Glass to the value of £8 millions was imported in 1920, while the export was little more than £3 millions. Germany contributed considerably to the import.

The **dyestuffs** industry, like the glass industry, was artificially fostered while abnormal conditions obtained during the War, and since textiles, to which the dyes are applied, form our leading export, the manufacture is rightly regarded as a key industry. It is apparent, however, that German leadership has hardly been shaken (in 1920 chemicals and dyestuffs to the value of £8½ millions were imported), nor is this unexpected, since over fifty years have been devoted by German chemists and technicians to the development of the coal-tar industry from which the fundamental aniline and alizarin compounds are derived. Very substantial progress in many directions has, however, been made in Britain, Huddersfield, in the heart of the Yorkshire textile-manufacturing region, being the chief centre of the dye industry, while there are large works also at Port Ellesmere (on the Mersey), at Manchester, Middlesbrough and elsewhere. In Glasgow and neighbourhood, well placed for the assembling of raw materials, the manufactures of heavy chemicals, glassware and dyestuffs are all represented.

As has been mentioned, textile industries, and among these the **cotton** industry, are of first importance in the British Isles, as can be gauged from the fact that the heaviest single item imported in 1920 was raw cotton, costing £257 millions, or 12 per cent. of the total value of imports: moreover cotton yarn and cotton goods were exported in the same year to the value of £401 millions, representing exactly 30 per cent. of the total value of exports. The raw cotton of ordinary grade (American) comes almost entirely from the United States, other sources of supply being at present negligible; the higher grades (Egyptian and Sea Island) come to a very large extent from Egypt, together with small supplies from the West Indies and the coastal belt of the United States. India's very considerable crop is of low grade, and is spun in the East, although there is a possibility of increase of the crop of middling American from the Indus Basin. In view of the fact that American cotton spinners are increasing their consumption of yarn, while American farmers are inclined to restrict the cotton crop in favour of food-stuffs, and still further that the ravages of the boll-worm constantly threaten existing sources of supply, the extension of cotton-growing of *suitable grades* within the Empire is a pressing need.

The total number of spindles is estimated at 58 millions, of which over two-thirds are engaged upon American cotton, and the remainder upon Egyptian, i.e. spinning the finer counts. Spinning occupies over 200,000 operatives, and in addition there are 800,000 looms employing 354,000 weavers. The great centre of the industry is, of course, the S. Lancashire coal-field, with Liverpool as the importing point and market for the raw

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cotton; Manchester as the market for yarns and piece goods; Rochdale, Blackburn, Burnley, Oldham, Bolton, and other great towns as the seats of the cotton mills. Practically all the spinning is done in South-east Lancashire and the adjacent parts of Cheshire and Yorkshire, although the weaving industry is more widely spread. Every variety of cotton textiles is manufactured, from coarse sheetings, calicoes and flannelettes to fine mercerised fabrics, chiffons and voiles, and the range includes velvets, corduroys and fustians.

Glasgow and district, favourably placed as regards import and export, coal and labour, is a secondary cotton centre, Paisley being specially noted for its large cotton thread industry (the Coats combine). Nottingham, with Long Eaton, is the seat of the machine-made lace industry, making curtains, nets, edgings, veilings, besides cotton knit goods, hosiery and fabric gloves. Subsidiary centres are found in Derbyshire and at Kilmarnock.

British yarns are marketed in most countries where cotton textiles are manufactured, notably in Germany (under normal conditions), the Netherlands, India, the Near East, and (for finer counts) Switzerland and the United States. Japan has proved a very strong competitor in Far Eastern markets, notably in China. Cotton piece goods find their principal market in India, followed in the order given by Latin America, Egypt, China, West Africa, France, Australia, the Dutch East Indies, Switzerland and the Near East. Japan is again a competitor in the Far East, as is also the United States. In regard to meeting foreign competition, the chief asset of the British cotton industry is its enormous momentum as a "going concern," coupled with the unequalled skill and experience of the operatives, which is handed on from generation to generation. The only branch of the cotton industry in which the British manufacturer fails to hold his own is in that of hosiery and gloves, the imports (from France, Germany, Japan, America) exceeding the exports.

The **woollen** industry is on a much smaller scale than the cotton industry, since the fabric is not in such universal demand, but the export value of woollen yarn, woollens and worsteds in 1920 reached £135 millions, while the import value of raw wool amounted to £94 millions, a reduction on the previous year's value of £105 millions. This represents only seven-eighths of the raw material consumed, so that it is evident that this industry depends mainly upon selling in the home market. The industry is a very old established one, since wool was long the English staple of trade, and the manufacture was carried on round the margins of the uplands which formed the principal sheep-walks. Here it is still to be found, but practically 70 per cent. of the output is from the eastern flank of the Pennines, where the dales run down to the West Riding coal-field. Bradford is the commercial centre of the wool trade, although the London wool market is very important. Leeds, Huddersfield, Halifax, Wakefield and Dewsbury are all large woollen-manufacturing towns. Besides sheep's wool, various minor raw materials are attracted to this area, notably flax, mohair, alpaca and vicuna; woollen rags are also imported for making "shoddy" cloth. There is, moreover, no hard and fast line between the Lancashire and Yorkshire textile areas—some woollens (notably flannels) are manufactured in the former, and both cottons and "union fabrics" are manufactured in the latter. The Pennines are narrow at this point, and there is free intercommunication both by rail and canal, the Aire and Calder navigation system carrying very considerable



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traffic. Liverpool serves as the American and World port, Hull (with Goole and Grimsby) as the Continental port for the combined regions. In addition to piece goods (the largest class) and yarn, British carpets and woollen hosiery find a good market abroad. The value of carpets exported exceeds that of the Oriental carpets and rugs imported.

In Scotland the woollen industry centres in the valleys opening eastwards from the leading sheep-walks—the South Uplands and Cheviots: here Hawick is the business centre, while Galashiels is also important. Tweeds and knit goods are the speciality of the region, which has, like Yorkshire, pure water for cleaning and dyeing purposes, but lies right away from the coal-fields. Leicester, on one of the lesser Midland coal-fields, and in a district famous for its long-woolled sheep, has also developed a large knit-goods industry. There are many minor woollen centres which have maintained their existence owing to the high repute of the fabrics produced—such are the “Newtown flannels” of the Welsh border, the “West of England cloth” of Stroud, the “Harris tweeds” (homespun) of the Hebrides, and the Donegal tweeds (largely homespun) of north-west Ireland, with many others.

The **linen** industry ranks third among British textiles, but it is of world-importance. The number of spindles is over a million, and of looms about 58,000, of which two-thirds are in north-west Ireland, one-quarter in Fife-shire and Dundee (Scotland), and the remainder in England. The industry has been greatly disorganised by the cessation of trade with Russia, and the abnormal demand for linen as a war-material, and hence recent figures have little significance. Roughly the output has less than half the value of that of woollens, and some 60 per cent. is sold in the home market. Belfast is the centre of the industry, while Londonderry specialises in shirts and collars, and Dunfermline in Scotland is noted for table damasks. Other fibres are attracted to the flax spinning and weaving centres, notably cotton, *hemp* and *jute*. Belfast manufactures cotton as well as linen thread, besides “union” fabrics, and has very large rope works. Similarly Dundee has very important jute manufactures (ropes, sacks and hessians), and most of the leading East Coast ports (facing the Russian hemp region) manufacture ropes, sailcloth and cordage. Jute manufactures to the value of £5½ millions were exported in 1919, linen manufactures to the value of £23 millions in 1920.

The British **silk** industry is a small one, centring in Macclesfield in East Cheshire: raw silk to the value of nearly £2 millions was imported in 1920, but in the same year the import of silk goods was valued at £22 millions. These came mainly from Japan and France. Artificial silk is largely manufactured at centres which specialise in hosiery and knit-goods, notably at Leicester.

The *metal industries* are next in importance to textiles, and play a very large part in external trade. Raw metals and ores (including copper, lead and zinc) were imported in 1920 to the value of nearly £70 millions, while the export of metal and metal goods, or part metal goods, was worth about £240 millions in 1919—equivalent to £90 millions at pre-war prices. This represented an actual falling-off in volume of exports of about 25 per cent.

As has been mentioned, the great centres for the production of **iron** and **steel**, including pig-iron, steel ingots, castings, plates, angles, joists, rails, structural and manufacturers’ steel, are the North-east coast (Newcastle to



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Middlesbrough), Sheffield and District, the Midlands (Black Country), South Wales, Central Scotland and the North-west Coast (Barrow and Whitehaven). Particular localities specialise in particular manufactures. Sheffield has a world reputation for cutlery, including knives, scissors, and all varieties of edged and machine tools, and beside this there has grown up the manufacture of table plate, whether of silver, electro-plate, or some variety of "white metal." Agricultural machinery and implements, engines, heavy forgings and castings are also made. An important development (associated with Sheffield) which took place during the war was the increased manufacture of ferro-alloys—manganese-steel, tungsten-steel, molybdenum-steel, nickel-steel, chrome-steel and so on—which are employed in the manufacture of machine tools, automobile parts, and stainless cutlery, and are alloyed with structural steel. These are largely smelted in the electric furnace—and the number of furnaces in Britain increased from sixteen in 1913 to ninety-four in 1917—a figure exceeded only by that of the United States, which was 177 in the same year. Owing partly to general trade stagnation, partly to the high cost of power, the furnaces were, however, all idle in the middle of 1921. It is open to question whether the British industry can compete with countries like Scandinavia (Sweden has forty-five furnaces), and America, which have cheap power. As regards ferro-silicon this is agreed to be impossible, while as the United States monopolises vanadium ores, ferro-vanadium is all of American origin. The stainless-cutlery industry, however, is prospering, both as regards home and export trade. The Midlands, including Birmingham, Wolverhampton and Dudley (the Black Country), specialise in general and domestic hardware, hollow-ware and enamel-ware. Brass-founding, brass-fitting, and miscellaneous metal-work, including the manufacture of jewellery, lamps, lavatory fittings, and bedsteads, are also associated with Birmingham. Among metal industries in which Britain entirely fails to hold her own is the *watch and clock* industry, centring in London. The British article is of excellent quality, but too costly for the ordinary purchaser, so that imports, mainly from Switzerland and the United States, were valued at £3 millions, while the exports were under £30,000 in 1919.

South Wales, with ready facilities for import from Spain and from the Tropics, has large metal-working industries, including tin, copper, zinc and nickel (the ore in the last case coming from Canada), notably near Swansea and at Llanelly. This coal-field is consequently the seat of the **tin-plate** (including black plate and terneplate) industry. Some half-million tons of tin-plates were exported before the War, i.e. about 70 per cent. of the output, and the market is almost world-wide. The United States, however, now manufactures  $1\frac{1}{2}$  million tons, and is an exporter. The same district has also a large manufacture of *galvanised iron* sheets, although these are made also in Cheshire, the Midlands, at Middlesbrough, and elsewhere. Like tin-plates, these sheets find a very wide and valuable market abroad, which was in both cases very seriously disturbed and contracted during the War. France is a large purchaser.

The premier position of Britain in the textile industries owes a great deal to the high point of perfection to which home manufacturers have brought the *textile machinery*, and this is sold in all countries where similar textiles are manufactured. This industry is naturally mainly located in the Lancashire and Yorkshire areas, while the making of *agricultural machinery* of high

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quality and repute is carried on in many of the leading market centres of Eastern England, notably Norwich, Grantham, Lincoln and Bedford. In this branch of industry American competition is very formidable. *Motor-cars*, motor-cycles and bicycles are manufactured on a large scale in the Midlands, notably at Coventry and Birmingham, and also in London, but they are undersold in foreign markets by American and French cars; £7 millions were spent in 1919 on foreign cars, whereas the sales abroad (including spare parts but not spare tyres) were only £2½ millions. The total sales of American machinery (excluding motor-cars) abroad in 1920 reached 463 million dollars (over £90 millions at the normal rate of exchange), steam and petrol engines being the most important single items.

**Shipbuilding** is of first importance on the Clyde, including Clydebank, Dumbarton and Port Glasgow, with Glasgow at the head of the estuary, as commercial centre for the whole busy region. Tynemouth, from Newcastle to South Shields, the Hartlepoons, Sunderland and Middlesbrough, form the great north-eastern shipbuilding group; Belfast, in spite of having to import from Scotland both coal and iron, has also a leading position, employing 30,000 workpeople, while there are large yards at Barrow.

In 1920, 618 merchant vessels of rather over 2 million tons were launched in the United Kingdom. This figure exceeds by 140,000 tons that for 1913. Of the total, 60 per cent. was for British and 40 per cent. for foreign owners, principally Norwegian, French and Italian. The total world's output was 5·8 millions of tons as against 3·3 million tons in 1913. Thus Britain produced 35 per cent. of the total as against 58 per cent. in 1913. The loss of position indicated by these figures was due to the enormous shipbuilding boom in the United States. That country launched over 4 million tons in 1919, which dropped, however, to 2½ million tons in 1920; this was larger than the British figure, but this decline continued at such a rate that by the end of the latter year the tonnage under construction in Britain was actually greater than that in the States. Japan launched nearly ½ million tons in 1920—but in this country also the post-war years have shown a decline. It is estimated that in spite of the destruction of merchant shipping during the war, there are now 11 million more tons afloat than in 1913. As the volume of trade can be no more than 60–70 per cent. of the former total, it is obvious that much shipping must be laid up until economic restoration is accomplished. Many old and obsolete ships are, however, included in the total.

Marine engineering is important in the great shipbuilding centres. General *engineering* is carried on in practically every large town, while several centres have grown to importance owing to the location there of the railway workshops of one or other of the large companies—e.g. Crewe, Swindon, Darlington, Derby. Locomotives, trams and other rolling-stock are also built for export in the Midlands and in the Scottish industrial district, and the sales abroad reached about £5 millions in 1919, although in spite of inflated values this is far below the pre-war figure. There is, however, an enormous world shortage of rolling-stock, especially in Europe, and sooner or later this must be met.

Taking machinery as a whole, British exports in 1919 amounted to £32 millions, including £1½ millions for sewing machines (made near Glasgow),



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but imports in the same class cost £15 millions, of which over a quarter was for machine tools. Totals for 1920 show £20 millions imported, and £63 millions exported.

As regards *electrical goods*, apparatus and machinery, a more favourable position is indicated by the 1919 trade figures, in that exports were valued at £7½ millions, and imports at £2 millions only.

Among the secondary industries of the British Isles, the manufactures of **china** and **earthenware** supply the bulk of the home market, and furnish an export valued at nearly £8 millions in 1920. This is a record figure, Canada and the United States making exceptional purchases. The Potteries are situated on the North Staffordshire coal-field, near the source of the Trent, and include Burslem, Hanley, Fenton, Longton and Stoke. The coarse clay of the neighbourhood is suitable for the saggars in which the china is baked, but china clay (kaolin) from Cornwall is imported through the mouth of the Mersey by canal. The normal output of the clay is 700,000 tons, part of which is used in Lancashire for loading cotton fabrics, and part in paper-making. British sanitary ware is of high repute, and holds the field abroad, while table crockery and fancy china of all qualities are manufactured. Apart from the "Potteries" proper there are manufactures of high-class china in Derby, Worcester and London, while some works are located in Devonshire.

The **leather** industry is a very large one, since in the main the whole population of the British Isles wear home-manufactured boots and shoes, while saddlery, harness and belting are also of home origin. The net import of raw and dressed hides was valued at £32 millions in 1920, and there is a large import of dressed leather, including chrome leather, patent leather and sole leather from the United States, France, and Germany, valued at £18 millions in 1919. In addition, the cattle slaughtered for import supply a large quantity of raw hides to the tanneries: hence these latter are situated near the great ports of entry, e.g. on the Mersey, or are scattered through the rural districts. Valonia from Smyrna, wattlebark from Natal, myrobolans from India, and quebracho extract from Argentina are the chief tanning materials imported, costing over £1 million sterling. The leading leather markets are at Bermondsey (London) and Leeds. The *boot* and *shoe* manufacture is associated with the Midlands, where there are noted grazing lands, Northampton taking the first place, followed by Leicester and Stafford. The industry is also important at Norwich and Bristol, and at Maybole and Linlithgow in the west and east respectively of Central Scotland. The export of boots and shoes was valued at £4 millions in 1919. Yeovil has a hand-made *glove* industry, but kid and leather gloves are largely imported. A great many industries depend upon the fact that the ports of Britain are world markets of the first rank, so that the assembling of raw materials is easy. Such, for example, are sugar-refining, tobacco-manufacture, the making of chocolate and confectionery, of rubber goods, the refining of mineral and vegetable oils, and the manufacture of oleomargarine and soap. Besides supplying the major needs of the home market, the soap-makers exported goods to the value of nearly £9 millions in 1919. Rubber tyres were sold abroad to the value of £4 millions in 1919, rubber shoes to that of £½ million, and other rubber goods to the value of nearly £3 millions. These industries are generally carried on near the great ports of entry—i.e. at Liverpool, London, Manchester, Glasgow, Hull and Bristol.

The **paper** industry, though depending on imported raw material,



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requires an abundant supply of pure water, and hence the mills are in scattered locations, e.g. on the margin of the chalk outcrops in the London Basin and Kent, in Eskdale (Midlothian), and on the margins of the Pennines. The raw materials include pulp from Scandinavia and Canada, besides esparto-grass from Spain and North Africa: they cost £15½ millions in 1920. Yet the consumption is so great that paper to the value of £13 millions—chiefly newsprint from Canada and Sweden—was imported in addition. There is an export of paper—chiefly stationery—to the value of £4¼ millions, and of printed books (chiefly to the Colonies) to the value of £2½ millions. The printing and publishing trades are centred in the capital cities of the different parts of the United Kingdom, and in the older Universities.

The **brewing** industry, originally dependent on home-grown barley and hops, is developed throughout the country, and the output of some 30–35 million barrels is mainly consumed at home. The ales of Burton-on-Trent and the stout and porter of Dublin are of very high repute, and contribute largely to the export trade, valued at £2 millions. Over £17¾ millions was spent on foreign barley in 1920, and the industry also consumes about 1½ million tons of sugar—costing roughly £4 millions, and imported hops to the value of over £2 millions. The **distilling** industry is characteristic of Scotland and Ireland, whisky being the principal product. The output reaches an average of 40–50 million proof gallons, and the export of 3¼ million gallons in 1919 was worth £4½ millions. The pre-war export amounted to 10 million gallons.

**Furniture and cabinet-making** is an industry which almost fully satisfies the home market, and some British furniture goes out to the Colonies. London is an important centre of manufacture while the cottage industry of chair-making, which drew raw material from the Chiltern beech-woods, has been transformed into a large factory industry at High Wycombe. Local timber, however, by no means suffices for the industry, imported oak, mahogany and other furniture woods costing £8 millions in 1919. Timber, chiefly Scandinavian softwoods, imported for building and general purposes, cost in the same year £38 millions, and pit-props for the coal-mines over £7 millions: the whole bill for purchases abroad, including manufactured wood, was over £76½ millions (in 1920, £90 millions), which could be materially reduced by the adoption of the reafforestation programme recommended by the Forestry Sub-Committee of the Ministry of Reconstruction in 1918. Part of the pit-prop supply is now obtained from the French *Landes*, which were afforested by the State after the Napoleonic Wars, and are now a source of revenue, besides having proved invaluable during the War.

It may be observed that in those countries in which most effective use is made of the land—Denmark, Holland (where the Zuyder Zee is being reclaimed), Belgium, France—from all of which Great Britain derives agricultural produce which might be home grown, agriculture is an industry of dominant, and not as in Great Britain of apparently inferior, importance. Hence agricultural interests are there effectively represented in Parliament, where agricultural problems are well understood, while financial facilities for agricultural enterprises are far more readily obtained than in Britain, where Banking is the monopoly of a small group of City financiers. It should be a function of the State to review the Nation's Commercial Balance Sheet as a whole, and to prevent such errors as overbuying of a particular

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raw material, glutting a particular market, buying from abroad goods which could be produced at home, with many other mistakes which result from purely individualistic methods.

**Trade Relations.**—The tendency of trade is to be concentrated more and more upon a few great ports of entry and departure: thus the twelve leading ports of Great Britain—Liverpool, London, Hull, Manchester, Glasgow, Bristol, Newcastle, Cardiff, Southampton, Leith, Grimsby, Dover, (in the order in which they stood in 1919)—together handled 76 per cent. of the total trade in 1913, and no less than 89 per cent. in 1919. If we group together Liverpool, Manchester, Glasgow and Bristol as being mainly interested in American trade, London and Southampton as mainly interested in the Tropics and the Far East, and the remaining group as mainly interested in the Continent, we find that Group II, both in 1913 and 1919, handled one-third of the total trade, while Group I handling only 28 per cent. in 1913, increased this to 44 per cent. in 1919, and Group III handled 14 per cent. in 1913, but only 12 per cent. in 1919. This reflects the disproportionate part which America has assumed in British overseas trade, a point which will be further examined. A slightly different grouping of ports gives results of interest. The Mersey stands first as a point of entry and departure with 38 per cent. of the total, but here the inward trade is almost double the outward. London with its outports stands second, with 36 per cent. of the total, and again the imports are double the exports; the Humber stands third with 8 per cent. of the total, and roughly equal inward and outward trade; while the Clyde stands fourth with 5 per cent. of the total, and imports worth one and a half times the exports. This concentration of inward trade, without a corresponding concentration of outward trade, involves a wasteful movement of ships in ballast to points of departure. Moreover, the total inward trade is much greater in quantity than the outward, and consists of bulky goods (raw materials and foodstuffs) occupying much more space, so that a large proportion of ships must leave Britain in ballast, with the result that outward freights are normally cheap. It is only from the coal ports of South Wales, the Tyne and the Forth that there is a striking excess of exports over imports.

In considering the direction in trade in more detail, it will be recalled that 1919, the last year for which complete figures are available, was one of reckless overbuying of raw materials abroad (e.g. tobacco, wool), at a time when owing to the arrears of home orders, manufacturers were unable to give due attention to the foreign market. Hence the unprecedented ratio of imports to exports, which was as 7 to 4, instead of as 5 to 4, a figure which the country can easily bear, and which was practically reverted to in 1920. In 1913 the greatest volume of trade was done with Europe, and as regards individual countries, the greatest European trade was done with Germany, which sold to us goods valued at £76 millions, and purchased goods valued at £60 millions—i.e. the normal 5 to 4 ratio was preserved. The sales to Germany included re-export of foreign and Colonial produce, for which again that country was our best European customer. In 1919 Britain sold to Europe goods valued at nearly £600 millions—equivalent to pre-war sales of about £200 millions—and whereas in return this country should have commanded European goods to the value of £700 millions, actually the receipts of goods amounted merely to £250 millions. In other words, Europe is now very greatly in debt to Britain, and its economic



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restoration is an urgent necessity. In 1913 the Americas ranked next to Europe as regards volume of trade, British purchases being very decidedly in excess of the 5 to 4 ratio, largely owing to the necessary great expenditure on raw cotton in the United States. In 1919, taking the old scale of values, sales to the Americas were barely a quarter of what they had formerly been, so that taking the pre-war ratio of sales to purchases, only some £200 millions should have been expended on American goods. Actually the colossal sum of £826 millions was spent, that is to say, America (the United States and Canada) has accumulated large credits in this country. Trade with Asia is normally about half the volume of trade with the Americas, and sales in that continent are in excess of purchases, although this did not obtain during the abnormal conditions of 1919. The combined trade of Britain with Australasia and Africa is about equal to the total with Asia, the Australasian trade being slightly the more important of the two. In these markets the value of the total sales effected is higher than the average ratio of 4 to 5 when compared with purchases, although this was by no means the case in 1919, when abnormal wool-buying created a heavy adverse balance in favour of Australasia.

Broadly speaking, it would appear that Great Britain should seek to better her position as a seller in American markets—especially Canadian, West Indian, Brazilian, Argentine and Mexican: that she should foster the economic recovery of Europe, so as to buy food-stuffs and raw materials from the east and south of that continent: that she should take steps to meet growing American and Japanese competition in the Indian and Far Eastern markets: that she should not merely maintain, but increase her existing lead in the Australasian and African markets. Since Britain has a world-wide reputation for quality in many classes of goods, it is policy also for manufacturers to concentrate their efforts upon monopolising the market which exists among well-to-do people throughout the world for articles guaranteed to be the best obtainable of their kind. Such a trade is not threatened by less experienced competitors, nor by growing disadvantages with respect to power and raw material, since a cheap article is not in question.

Attention should be directed towards making the Empire self-contained as regards the major staples. At present 70 per cent. of the vital raw cotton supply comes from the United States, and over 20 per cent. from Egypt, now independent: only a little over 4 per cent. comes from British sources. Many regions with suitable climate and soil conditions lie within the Empire: the organisation of labour, capital and transport, however, present great difficulties in most of such areas, and the British Cotton Growing Association has not made the hoped-for progress. Oil is another commodity of which there are no large supplies within the Empire. The United States and Mexico just now hold almost a monopoly, but it appears that Russia is by no means permanently relegated to the third place, while Galicia and Rumania have also undeveloped possibilities, in addition to those of Persia and of Mesopotamia. Should, however, the promise of the new field in North-West Canada be fulfilled the situation will be entirely changed. Sugar is at present bought mainly from Cuba and from Java—two countries with which the return trade is by no means large. There are possibilities of beet cultivation in Canada and Australia, but more immediately advantageous would be the renewal of purchases from Central and Eastern Europe. More



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cane-sugar could be produced, too, in British Polynesia, and these island groups, provided the labour difficulty were solved, could diminish the need for foreign imports of tropical oil-seeds (including copra), fibres, and food-stuffs, such as cacao and coffee.

As regards metals, Great Britain is favourably placed in respect of gold (from South Africa and Australia), tin (from Malay), nickel, silver, cobalt and asbestos (from Canada), manganese (from India), zinc (from Australia), chromium (from Rhodesia). The United States is better placed as regards copper and lead, and, unlike Great Britain, is not forced to import iron ore. Indeed, apart from a lack of tin, the U.S.A. has undoubtedly the greatest advantages of any country in the world as regards mineral wealth. But Siberia and China have great untapped resources, and from what has been said above it is clear that it will be increasingly possible in future years for Britain to purchase more goods from the Old World and less from the New, thereby partly removing the anomalies in the balance of trade, and the resulting anomalies in shipping freights and the rate of exchange.

**General Information.**—The unit of currency in the British Isles is the gold sovereign, containing 113 grains of fine gold. The debased shilling (one-twentieth of a sovereign) contains 40·36 grains of fine silver, and is legal tender up to £2. Bank of England Notes and £1 and 10s. Treasury Notes are also legal tender, the total note issue on March 20th, 1920, being £440 millions. There is no State Bank in Britain, but the Bank of England, the Bank of Scotland and the Bank of Ireland have Royal Charters, and the first and last named lend money to the Government. The principal Joint Stockbanks have, by amalgamation, been reduced to five, these being : Barclays, Ltd. ; Lloyds, Ltd. ; London County, Westminster and Parr's, Ltd. ; London Joint City and Midland, Ltd. ; National Provincial and Union Bank of England, Ltd. All the important Colonial Banks have offices in London, besides the following leading foreign banks : Crédit Lyonnais, and Comptoir Nationale d'Escompte de Paris (France) ; Banca Commerciale Italiano, and Credito Italiano (Italy) ; Bank of Athens (Greece) ; Banco Nacional Ultramarino (Portugal) ; Banque Belge pour L'Etranger (Belgium) ; Bank of Spain (Spain) ; Imperial Ottoman Bank (Turkey) ; Yokohama Specie Bank (Japan) ; Swiss Bank Corporation (Switzerland) ; National Bank of Egypt (Egypt) ; International Banking Corporation (U.S.A.). The African Banking Corporation, the Anglo-South American Bank, the Hong Kong and Shanghai Banking Corporation, and the Chartered Bank of India, Australia and China, are British Banks doing large business in London and the regions named in their titles.

The British unit of length is the standard yard : of weight the standard pound : and of capacity the standard gallon. The metric system is employed in scientific work only, and this constitutes a grave disadvantage in respect of Continental trade.

The Government Department of Overseas Trade is thoroughly organised, and detailed information of existing conditions in all foreign markets can be immediately obtained.

**BRITISH SOLOMON ISLANDS**

See **Solomon Islands, British**, p. 431.

**BRITISH SOMALILAND**

See *Somaliland, British*, p. 432.

**BRITISH SOUTH AFRICA**

**Area and Population.**—British South Africa includes the Union of South Africa (a self-governing Colony), the South-West Africa Protectorate (administered by the Union), and three native Protectorates, Basutoland, Bechuanaland and Swaziland, each administered by a Resident Commissioner, acting under the High Commissioner for South Africa. The total area of these territories is over 1 million square miles (about the area of the Argentine Republic, or nine times the area of the British Isles), and the population only 8 millions. The Union occupies rather less than half the total area (473,000 square miles), but contains  $7\frac{1}{3}$  millions of the population.

In the Protectorates the white population numbers a few thousands only, while in the Union they number  $1\frac{1}{2}$  millions (mainly of British and Boer descent), as against a coloured population of nearly 6 millions. The fact that the whites are outnumbered by the blacks in the proportion of four to one is an outstanding point of difference between the Union of South Africa and the other self-governing Colonies of the Empire, and constitutes a serious problem. All manual and domestic labour is performed by the "Kaffirs," and there is no place in South Africa for unskilled white labour. Immigration is practically limited to persons with capital, and to skilled workers coming to take up appointments. A small but important element in the population are the Asiatics: they include about 100,000 British Indians in Natal, 10,000 in the Transvaal, and 20,000 Malays in the Cape of Good Hope Province. Severe restrictions have been placed on further Asiatic immigration. About one million African natives live in the Transkei, the native territory in the east of the Cape Province, while about half the native population of the Transvaal is found in the Zoutpansburg and Lydenburg districts in the north.

The largest city in South Africa is Johannesburg, with about 250,000 inhabitants, including 137,000 whites. Cape Town, the leading seaport and the seat of the Legislature, has about 180,000, including 100,000 whites, Durban, the chief city and seaport of Natal, has about 100,000 inhabitants, including a white minority of 48,000. Pretoria, the capital of the Transvaal and of the Union, has a marked white majority, 42,000 out of a total of about 67,000. These are the only towns with more than 50,000 inhabitants, with the exception of Germiston and Krugersdorp, on the Rand, where the coloured persons outnumber the whites by  $2\frac{1}{2}$  to 1 and  $3\frac{1}{2}$  to 1 respectively. Bloemfontein, the capital of Orange Free State, has only 30,000 inhabitants, whites being in a majority. Windhuk, the seat of administration of the South-West Africa Protectorate, has 10,000 inhabitants.

The total trade of the Union of South Africa in 1919 reached the maximum figure of £155 millions (exports, £104½ millions). To this must be added £2 millions representing the trade of Basutoland, and £5 millions as an estimate of the potential trade of the former German South-West Africa

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FIG. 31.—BRITISH SOUTH AFRICA.

The figures for 1920, as far as they are published, show further substantial increases in South African trade, but the great excess of exports over imports has markedly decreased.



## **British South Africa.**

**Position and Climate.**—British South Africa embraces almost the whole of the continent lying outside the southern tropic, while the Bechuanaland and South-West Africa Protectorates extend to within  $17^{\circ}$  S. of the Equator. Development within the tropics is relatively slight, but temperate South Africa stretches from the Atlantic to the Indian Ocean and from  $22\frac{1}{2}^{\circ}$  to  $33^{\circ}$  S., and hence embraces a great variety of climates. The result is seen in the extent as to which—consequent on the variety of products—the country is self-contained as regards food-stuffs.

Except upon the east coast belt, and upon the terraces rising from this coast to the Drakensberg, the rainfall does not average 40 in., that is to say, it is moderate to slight, and over large areas actually deficient. In the regions of moderate rainfall, there is very little margin of safety, and if the rains are late or scanty, springs, wells and rivers rapidly dry up, so that disastrous droughts are not uncommon.

Broadly speaking, the Cape region, i.e. the extreme south-west of the Cape Province, has a winter rainfall, due to westerly winds, and is dry in summer. The rest of the country has summer rains, brought by the south-east trades, which consequently diminish with increasing distance from the east and south-east coasts. The Cape to Cairo railway (except in the Cape region, already mentioned) may be taken as marking the boundary between the sufficiently watered and insufficiently watered parts of the country. Agricultural development is to the east and south of this line, while the nearer to the line the more important (relatively) is the part played by pastoral industries.

The climate of the Cape region resembles that of the Mediterranean lands, while that of the coastal plain of Natal and Zululand is (owing to warm ocean currents and winds) almost tropical. Elsewhere the altitude of the country, usually more than 3,000 ft. above sea-level, moderates the climate. The combination of high altitude and low rainfall gives great power to the sun's rays, so that the summer days are exceedingly hot, and the sudden chill at sunset is often dangerous to health. There is no actual cold season, but winter frosts are not infrequent during the night.

The west coast plain is very dry, as is the whole southern part of the South-West Africa Protectorate, but the northern area has moderate tropical summer rains.

**General Physical Conditions.**—South Africa is a vast tableland with a lofty rim to the east and south, represented by the Drakensberg, Storm Berg and Nieuwveld Mountains. The main drainage is carried east by the Orange and Vaal Rivers, which after they unite flow through an increasingly dry region, and descend from the plateau level by the Great Auhrabies Falls. Neither river nor falls, in view of their situation, is of economic value. In the north-west and the north of the Transvaal the tableland slopes down to the unhealthy tropical valley of the Limpopo, a river which subsequently enters Portuguese territory.

The south-west (Cape region) and south lie outside the tableland, and are characterised by a series of mountain ridges which run parallel to the coast. These ridges catch the rains, and those nearest the south coast are forested. Between them lie very dry valleys and plains, such as the Little and Great Karroo, which can, however, be partially irrigated.

The Cape region has a vegetation of evergreen trees, shrubs and heaths; the well-watered eastern terraces are clothed with a rich wooded savannah,

with palms on the coastal belt; over vast acres of the eastern tableland (Southern Transvaal, Orange Free State and Cape Province) there is an almost treeless grassland, the veldt, which merges westwards into scrub and bush, composed of thorn bushes, and other drought-resisting plants. In the northern Transvaal the grassland is wooded, and is known as the bush veldt.

**Human and Economic Conditions.**—The dry climate and enormous acreage of natural pasture in South Africa pointed to *pastoral* occupations as the most suitable for European colonists. There are now 30 million **sheep**, and 8 million **goats** in the country, including a large proportion of pure-bred and cross-bred merinos, and Angora goats, which thrive best in semi-arid regions. **Cattle** number nearly 7 millions, and become increasingly important towards the east and south. Oxen are very generally used for transport purposes, and during the last few years there has been an increasing export of *beef*. Dairy farming is very successful in Natal on the higher and cooler eastern terraces, and in similarly situated parts of the Cape Province, and the export of *butter* and *cheese* is a new feature in South African trade. On the savannah lands of the northern region of South-West Africa Protectorate there are large areas suitable for cattle. Ranching was begun by the Germans, and the cattle are exceptionally free from disease. **Ostriches** are reared in the Little Karroo, and on the high veldt, the birds numbering over 300,000 in 1918. This is less than half the number reared in 1911, since the industry underwent a period of great depression during the War, but it appears to be reviving. **Pigs** number about a million, and in view of the large maize crops raised, their numbers might be increased. Some trial shipments of pork have been made. About 40 per cent. of the cattle, pigs and poultry are owned by Kaffirs. The *egg* industry is one capable of development.

The most important cereal crop of South Africa is **maize**, to which the hot summers are well suited: the heaviest crops come from the better watered areas. The export of maize and maize meal in 1919 was worth nearly £3 millions. The **wheat** harvest is much smaller than that of maize, and wheat is sometimes imported. It is grown in a relatively narrow belt, with 20 to 25 in. of rain, along the eastern edge of the tableland, running from the south-eastern Transvaal into the Cape Province, and including the fertile Caledon Valley on the borders of Basutoland and Orange Free State. A second wheat region is that behind Cape Town, where the Mediterranean type of climate is very favourable.

**Tobacco** is very widely grown, and supplies the large local demand. A market is being sought for the surplus (about 2 million lb.), notably by the growers of Virginia leaf in the Rustenburg area in north-western Transvaal. A little Turkish leaf is grown in the Cape region, at Stellenbosch. The climate of the latter region, with its summer drought, is very suited to fruits. The **vine** is grown, and Cape wines are well known, although the export is not great. Small consignments of superior dessert fruits—plums, pears, peaches—from this area also reach the United Kingdom. Of greater promise, however, is the **dried fruit** industry. The production has reached between 4,000 and 5,000 tons, including raisins, sultanas, prunes, pears, apricots and peaches—more than sufficient for the African market.

**Oranges** do very well in many parts of South Africa, notably in the Transvaal, and it is considered that the shipment of about 50,000 cases (worth £100,000) in 1919 might be increased tenfold. South African



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oranges arrive in the London market during the summer, when the fruit from Spain and elsewhere in the northern hemisphere is over. **Pineapples** are grown in the south-east, and are canned at Port Elizabeth.

The semi-tropical coast plain of Natal (including Zululand) has two important industries not found elsewhere: the cultivation of tea and sugar. Indian labourers are generally employed upon the plantations. The **tea** crop averages 5 million lb., and is practically all marketed in South Africa: shortage of cheap labour prevents the otherwise possible extension of the acreage. The **sugar** crop has increased lately and averages 110,000 tons, a figure which leaves a small surplus available for export. Another notable industry of Natal is the cultivation on the middle terraces of *wattle-bark* (a tanning material), derived from an Australian variety of acacia.

Experiment has shown that South Africa can grow **cotton** of middling American grades, and since Kaffir women and children can do the work of picking, the industry should develop. At present the coast region of Natal and Zululand, and the Rustenburg district of the north-western Transvaal are the chief areas that have taken up this industry seriously. The 1918-19 crop was 1,600 bales of 500 lb., the greater part from the coast region.

The agricultural importance of South Africa has always been overshadowed by the more spectacular gold and diamond industries, but in 1919 the value of the agricultural and pastoral produce exported amounted to £32½ millions, or nearly 40 per cent. of the total. Moreover, unlike the gold and diamonds, the farm produce is partly retained for home consumption, and whereas in 1913 food-stuffs were imported to the value of £7½ millions, the figure decreased (in spite of rising prices) to only £4½ millions (under 12s. a head) in 1919.

The South African Government is seeking to attract British immigrants with capital to take up combined fruit-and stock-farming, and is also granting land on easy terms to settlers in the Mandatory Territory. Irrigation is assisted and encouraged, so that an increase in agricultural wealth and prosperity should normally be expected.

The *mineral* wealth of South Africa is, of course, enormous, the total value of the output up to the end of 1919 being calculated at nearly £900 millions. Of this, **gold** represents considerably more than half, nearly all the South African gold coming from the quartz reef of the Witwatersrand, in the Transvaal. The annual yield is about £35 millions. The mines employ about 180,000 coloured labourers, and 22,000 whites: hence Johannesburg and its neighbourhood is the most densely peopled area in the Union. It has been recently decided to establish a branch of the Royal Mint at Pretoria.

Ranking second to the gold mines as regards the monetary value of their output are the **diamond** mines, of which those of the Kimberley district, in the Cape of Good Hope Province, are the best known. Both the Orange Free State and the Transvaal have also important mines, and the industry employs about 40,000 persons (6,000 whites). The output is variable, from £5 millions to £7 millions annually. A local diamond-cutting industry may be set up with Government support, but it would be necessary to introduce skilled workers from Holland or Belgium, which practically monopolise the industry. Diamonds from Luderitz Bay (South-West Africa Protectorate) were valued at £2 millions in 1919.

The **coal** resources of South Africa are very great. The most extensive



**British South Africa.**

fields are in the Transvaal—on the Delagoa Bay railway, to the east of Johannesburg, and on the Orange State border. Next in extent are the Zululand deposits, but a greater output is obtained from the fields in the Dundee and Newcastle districts, in north-western Natal, on the Durban-Johannesburg railway. The fact that there is only a single line of rails limits the amount of coal that can be hauled down to Durban, which is, however, a very important coaling station. The Orange Free State has some mines near the Transvaal border, while the Cape Province has only the Indwe field, about 100 miles north of East London. The total output for 1919 ( $10\frac{1}{4}$  million short tons) was valued at £3½ millions.

Among metals of secondary importance are **copper** and **tin**, the former mainly from Cape Province, behind Port Nolloth, and from the South-West Africa Protectorate, the latter from the Transvaal and Swaziland. The Union is now the world's largest producer of **corundum**, and has valuable **asbestos** mines. Altogether the mineral output is worth over £50 millions annually, and mining employs nearly 300,000 persons. The mining revenue accruing to the State is over £2 millions. Iron pyrites is mined for sulphuric acid manufacture, and the manufacture of **pig-iron** has commenced at Pretoria.

As regards *manufactures*, the Union has recently made considerable progress, and the annual output of the factories is now valued at over £60 millions. The products include biscuits, jams and preserves, beer, cement, soap, candles, matches, furniture, leather, boots and shoes, explosives, chemicals, tobacco (one of the most important), vehicles and so forth. New ventures of interest are bottle-making, extraction of tannin from wattle-bark, the manufacture of paper from a papyrus growing wild in Zululand, and the manufacture of fertilizers from the phosphate rock of Saldanha Bay. There is, however, a real deficiency of manufacturing knowledge and skill in South Africa, and an advantageous line of development would be the establishment of branches of British firms in the country in which a nucleus of the personnel should be from Britain.

As regards raw materials, there is, of course, a marked deficiency of **timber** in South Africa, and the forests of the southern ranges (e.g. Knysna) have been seriously depleted. The Government is spending some money on re-forestation, and is also engaged in furthering schemes, e.g. the damming of the Crocodile River in North-western Transvaal, which will remedy the even more fundamental deficiency in the water-supply over wide areas.

**Trade Relations.**—The whole transport system of South Africa—railways, ports and harbours—is owned and managed by a State Department. There are nearly 10,000 miles of railway, and a further 1,300 miles has been surveyed, while the electrification of the lines in the immediate neighbourhood of Johannesburg and Cape Town, and in the colliery region of Natal has been decided upon.

The outstanding fact of importance as regards the foreign trade of South Africa is the advantage gained during the war years by the United States and Japan, not only at the expense of Germany and to a less extent Belgium and France, but at the expense of the United Kingdom. The share of the United States in the total trade (exclusive of gold) increased from 9 per cent. in 1913 to 27 per cent. in 1919; that of the United Kingdom declined from 55 per cent. to 44 per cent. Moreover, whereas Japan's trade with South Africa was almost negligible in 1913, it rose to  $4\frac{1}{2}$  per cent. in 1919, a figure

## British South Africa.

which represents, however, a decline on the  $5\frac{1}{2}$  per cent. share taken by Japan in 1918. The United States are large buyers of hides and skins, and during the War they built up a large woollen industry, which has caused them to turn to South Africa, among other countries, as a further source of raw material. Japan, too, has bought South African wool, and has supplied in return silk goods, cottons, haberdashery and small consignments of miscellaneous manufactures, including cutlery. The United States has found a market in South Africa for boots and shoes, and has considerably increased her sales of iron and steel goods, particularly agricultural and other machinery and motor-cars. It is significant that out of 294 tractors imported in 1919, 269 came from the United States, 21 from Canada, and only 4 from the United Kingdom. The Mother Country, however, still holds the first place in supplying cotton goods, woollen goods and apparel, hardware, cutlery and many other lines, and the total value of British trade (as apart from percentage share) continues to increase. Imports which the United Kingdom is unable to supply are soft woods and paper, which come from Sweden (this country also offers dairy machinery and electrical goods); bags, sacks and woolpacks, which come from India; petroleum, which is supplied by the United States, Trinidad and Dutch East Indies. Lack of shipping space, and particularly lack of refrigerating space, have hampered the development of trade in South African food-stuffs, especially butter, cheese and fruit.

Cape Town is the premier port of South Africa, being the nearest to Great Britain and America, and having the greatest shipping facilities. Durban ranks second, with the advantage of cheap coal, and is the principal port for Johannesburg. The nearest port to the latter city is, however, Delagoa Bay (Lourenço Marques), which takes a certain proportion of Transvaal trade.<sup>1</sup> Port Elizabeth (Algoa Bay) and East London are of secondary importance.

**General Information.**—English and Dutch (Taal) are the official languages. The coins and standard weights and measures are British, but the metric system will probably be introduced. Among old Dutch measures still in use are the *muid*, equal to three bushels, and *morjen*, equal to 2.1 acres. The principal banking establishments are the National Bank of South Africa, the Standard Bank of South Africa, and the Netherlands Bank of South Africa, of which the first two have branches throughout South Africa. A Central Reserve Bank has been established at Pretoria, with branches in the leading cities, which will have a monopoly of note issue. All these banks have London offices.

The mails from Southampton (Union Castle Line) reach Cape Town in 17 days, Durban in 23 days. Johannesburg is 24 hours' journey from Durban, 25 hours from Delagoa Bay, and  $44\frac{1}{2}$  hours from Cape Town. There are Imperial Trade Commissioners at Cape Town and Johannesburg, and Trade Correspondents at Durban, Port Elizabeth, Bloemfontein, Mafeking and Maseru (Basutoland).

<sup>1</sup> By agreement with Mozambique Colony (Portuguese East Africa), native labour for the Transvaal mines is recruited in the former territory, which supplied one-third of the total number in 1918. In return it was agreed that the produce of the Portuguese Colony, chiefly sugar, should go into the Transvaal duty free, and that between 50 and 55 per cent. of the traffic from the area between Pretoria and Klerksdorp should pass through Delagoa Bay. The latter stipulation has not been carried out.

**BRITISH SOUTH AFRICA COMPANY**See *Rhodesia*, p. 400.**BRITISH WEST INDIES****BAHAMAS**

**Area and Population.**—The Bahamas are a British Crown Colony administered by a Governor. The chief islands are New Providence, Abaco, Harbour Island, Grand Bahama, St. Salvador, Long Island, Mayaguana, Eleuthera, Exuma, Watling's Island, Acklin's Island, Crooked Island, Great Inagua, Andros Island. The total area is 4,400 square miles, and the



FIG. 32.—THE BAHAMAS.

population 60,000, negroes being in the majority. The capital and chief port, Nassau, is on Providence Island. The total trade is about £ $\frac{1}{2}$  million in each direction, or about £16 per head.

**Position and General Physical Conditions.**—The Bahamas are a large and scattered group of coral islands, stretching from a point not far from south-east Florida (U.S.A.) to the north of the Windward Passage. They are low-lying, and the consequent low rainfall, combined



## **British West Indies—Barbados.**

with the limestone soil, gives them a somewhat barren aspect. Moreover, their exposure to the Atlantic winds prevents much tree growth. The Tropic of Cancer runs through the group, hence the climate is very hot and sunny, but tempered by the winds.

**Human and Economic Conditions.**—The staple industry of the Bahamas is the **sponge** fishery, worth £200,000 in a good year. The *turtle* fisheries are of minor importance only. The climate and soil conditions have been found very favourable to **sisal**, which is now the chief crop grown for export. Since Nassau lies less than 200 miles from the port of Miami, Florida, the islands are favourably placed for providing *winter vegetables* to the United States, and the *tomato* industry is important. This industry was a valuable asset in 1920 when the prices of sisal and sponges fell heavily. *Pineapples* also succeed, and are canned and exported.

**Trade Relations.**—With the exception of fruit and vegetables practically all the necessities of life must be imported into the Bahamas, while very little of the staple products is retained for local consumption. More than 80 per cent. both of the export and import trade is with the United States, so that the value of the trade with the United Kingdom is very small.

**General Information.**—British silver and bronze coins are legal tender without limit, but American money is also in circulation. The Royal Bank of Canada has a branch at Nassau.

Telegraph communication is by wireless.

## **BARBADOS**

**Area and Population.**—Barbados is a British Crown Colony administered by a Governor. The area is 166 square miles and the population nearly 200,000 (chiefly negroes), i.e. over 1,200 to the square mile. The total foreign trade averages £5½ millions, or £27½ a head, a much higher figure than that for the West Indies in general. Part of this is, however, entrepôt trade, carried on through Bridgetown, which has a population of 17,000, and is also an important mail and coaling station.<sup>1</sup>

**Position and General Conditions.**—Barbados is the most easterly of the British West Indies, lying on the margin of the Atlantic Ocean, 60° E. of Greenwich and in latitude 13° N. The surface is covered with coral limestone, but the island is elevated, and as it lies in the path of the trade winds, it is well watered and exceedingly fertile.

**Human and Economic Conditions.**—The staple industry of the Barbados is **sugar** cultivation, usually from small holdings, the output being greater than in any other of the British West Indies, and the export averaging 50,000 tons in 1919 and 1920. The value of the sugar, molasses and rum exports is nearly £2 millions. The secondary crop is *cotton*, the 1919 and 1920 crops being about 2,000 bales of 500 lb.

**Trade Relations.**—Among the imports coal, rice and manures, partly for redistribution, are important. Of manufactures, cotton textiles form the largest class. In 1919 goods to the value of over £1 million came from the United States, while the share of the United Kingdom was £740,000

<sup>1</sup> For Map see Leeward Islands.

## British West Indies—Jamaica and Dependencies.

and of Canada £726,000. The latter country took the largest proportion of the sugar output (over £1 million), followed by the United Kingdom, the share of the United States in the export trade being small. Newfoundland took a large quantity of molasses in return for dried fish. Barbados is one of the few West Indian islands with surplus labour, which has lately been recruited for British Guiana.

**General Information.**—About half the tonnage entering and cleared at Bridgetown is British. English coins are in circulation, besides dollars and 5-dollar notes. The Colonial Bank and the Royal Bank of Canada have branches at Bridgetown. There is cable connection with the other West Indian Islands. Mails from England reach Bridgetown in 12 to 15 days. The Colonial Secretary acts as Imperial Trade Correspondent.

## JAMAICA AND DEPENDENCIES

**Area and Population.**—Jamaica is a British Crown Colony administered by a Governor: attached to it are the Turks and Caicos Islands, Cayman Islands, Morant Cays and Pedro Cays. The total area is nearly 4,500 square miles (about three-fifths the area of Wales), and the population nearly 900,000. Of this total only 16,000 (under 2 per cent.) are whites, the great majority being negroes or of part-negro descent. East Indians (i.e. immigrants from British India) number 20,000, and there are a few hundred Chinese. The only considerable city is the capital and seaport, Kingston, with 60,000 inhabitants: no other town has a population above 10,000. The total foreign trade in 1919 was £10½ millions—rather less than £12 a head, a *per capita* figure a little below that of the British West Indies as a whole. If the figures for the Turks and Caicos Islands be taken separately, it is found that in this group the whites number 5 per cent. of the total of 6,000, and the trade is £12 a head. The 1919 figure was unusually high, the average for the three

previous years being only £6 millions, owing largely to the lack of shipping, but the statistics available for 1920 show that the 1919 record will be again passed.

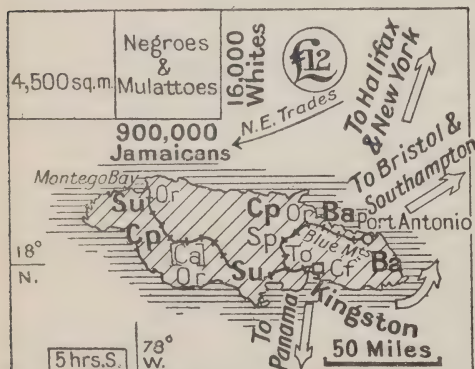


FIG. 33.—JAMAICA.

**Position and General Physical Conditions.**—Jamaica is one of the Greater Antilles, lying in latitude 18° N. to the southwest of the Windward Passage between Cuba and Haiti, leading into the Caribbean Sea. The island is mountainous throughout, the loftiest range, the Blue Mountains, being

found in the east. The rainfall is abundant, especially in summer, when the winds have an east-north-easterly direction, hence there are numerous



## **British West Indies—Jamaica and Dependencies.**

rivers, and the mountains are divided by deep and fertile valleys. The natural vegetation is a luxuriant tropical forest, but over a million acres are under cultivation or care.

The Turks and Caicos Islands are a part of the fringe of coral islands and islets which lies to the north and north-east of the Greater Antilles. They are very low-lying and the climate is dry, although the limestone soil is fertile. Cayman Islands, three in number, lie in the Caribbean Sea about 200 miles east-north-east of Jamaica, and are also of coral formation.

**Human and Economic Conditions.**—The crop covering the largest acreage in Jamaica is **bananas**, of which the export was worth £1¼ million—nearly half the total exports of the colony—in the years preceding the War. A series of hurricanes, and the shortage of freight reduced the banana export in 1918 to less than £300,000 in value, and to the fourth place on the export list. The years 1919 and 1920 saw a good measure of recovery. The banana groves are chiefly in the east of the island, and Port Antonio is mainly occupied with this industry. The low price of **sugar** led to this commodity taking the fifth place among Jamaican exports in 1912, whereas it rose to the first place in 1918, the quantity being about 43,000 tons, worth over £600,000. The prosperity of the industry has led to the installation of up-to-date machinery, and to the erection of new centrals, while the Government is planning to build a large sugar factory. The **coffee** plantations have diminished, although the value of the output has increased, and the “Blue Mountain coffee” enjoys a very high reputation. This industry is suitable for the small grower only. *Coco-nut* planting was on the increase before the War, but suffered a set-back for the same reasons as did the banana industry; both, however, are recovering. *Coco-nuts* are the chief product of the Cayman Islands. The forests of Jamaica yield **logwood**, and there are now three factories (with one or two more planned) engaged in the preparation of the extract, which was exported in 1918 to the value of nearly £400,000. Whether the competition of German synthetic dyes will destroy the industry is uncertain. The climate and soil conditions are suitable to *cacao*, but the bean can only be ripened in valleys sheltered from the strong trade winds, and hence its cultivation is restricted. *Oranges* do well, but lack a market, now that the United States are so nearly self-supplying. A paying crop, grown however on a small scale, is **tobacco**, which if given proper attention yields a leaf little inferior to that of Cuba, and is manufactured into cigars. Yet another minor product is *pimento*, or allspice, which is chiefly supplied from Jamaica, and is picked and prepared by cheap negro labour. The tree grows wild, and as the leaves have been found to yield the essential oil vanillin, the extraction of this is contemplated. The Government proposes also to foster the **sisal** industry in the east of the island, and to erect a factory. This industry is already established in the Turk and Caicos Islands, since it is suited to a dry soil and climate. These barren islands are, however, dependent mainly on the produce of the sea, *salt*, sponges and conch shells.

**Trade Relations.**—The trade of Jamaica is, as regards over 90 per cent., with three countries only: the United Kingdom, United States, and Canada. Jamaica is 4,000 miles from Bristol, 1,800 from Halifax, 1,500 from New York. Canada has the disadvantage of being at a greater distance from the Indies than the States, and of offering goods which are in



**British West Indies—The Leeward Islands.**

competition with those of the latter country. The establishment of reciprocal preference, and of direct shipping service by the Canadian Merchant Marine, will give compensatory advantages, but at present the Dominion averages 10 per cent. only of the total trade. The United States takes the lead in exporting goods to Jamaica, whereas the United Kingdom receives the largest share of Jamaican produce: the figures being between 60 per cent. and 70 per cent. in either case. On the other hand, the United Kingdom supplies only 20 per cent. of Jamaica's imports, while the United States takes only 24 per cent. of the colony's exports. Comparison of the latest figures suggests that the United Kingdom has strengthened her position slightly since 1918, but the relative positions of the three countries will probably remain unchanged.

In supplying textiles and clothing the United Kingdom takes the first place, while the United States supplies motor-cars, vehicles and furniture, and is a strong competitor as regards machinery, hardware, and metal goods generally, besides supplying flour, meat and groceries. Of a number of new locomotives for the Jamaican railway, some were ordered from Canada and some from the States. Canada supplies fish and buys sugar, fruit and tropical groceries.

The trunk railways run from Kingston westwards and then north-westwards to Montego, the northern port, and from Kingston north-east to Port Antonio. There is great need for light railways, to extend the area of development. Electrification is under discussion, and harbour improvements are promised.

**General Information.**—The legal coinage, weights and measures are those of Great Britain, but American coins are very generally used, and notes of the Colonial Bank, Royal Bank of Canada, and Bank of Nova Scotia, which operate in the country, are current. The cable station is at Grand Turk. Mails reach Kingston in 12 days.

**LEEWARD ISLANDS**

**Area and Population.**—The Leeward Islands are a British Crown Colony administered by a Governor and Commander-in-Chief. They are divided into five Presidencies, viz. Antigua (with Barbuda and Redonda), St. Kitts (with Nevis and Anguilla), Dominica, Montserrat, and the Virgin Islands (with Sombbrero). The total area is 715 square miles, and the population 127,000, or over 170 to the square mile. The foreign trade amounts to nearly £2 millions annually, exports being slightly in excess of imports. The *per capita* trade is thus about £15—slightly in excess of that of the West Indies as a whole. The population is mainly negro and coloured, with an aboriginal Carib element in Dominica, while the whites are usually of French descent.

**Position and General Conditions.**—The Leeward Islands form a chain bordering the Caribbean Sea on the north-east, and stretch from latitude 18° N. to latitude 15° N. The tropical climate is relieved by the sea-breezes, and by the mountainous character of the islands, which are of volcanic origin. Thus the soil is exceedingly rich and fertile. The group is, however, in the hurricane track, and crops are not infrequently destroyed.

**Human and Economic Conditions.**—Antigua, St. Kitts

# British West Indies—Leeward Islands.

and Dominica are the chief islands, the two first named producing altogether 23,000 tons of **sugar** annually, while the latter has large areas devoted to **limes**. The ports of shipment are St. John (10,000 inhabitants), Basseterre

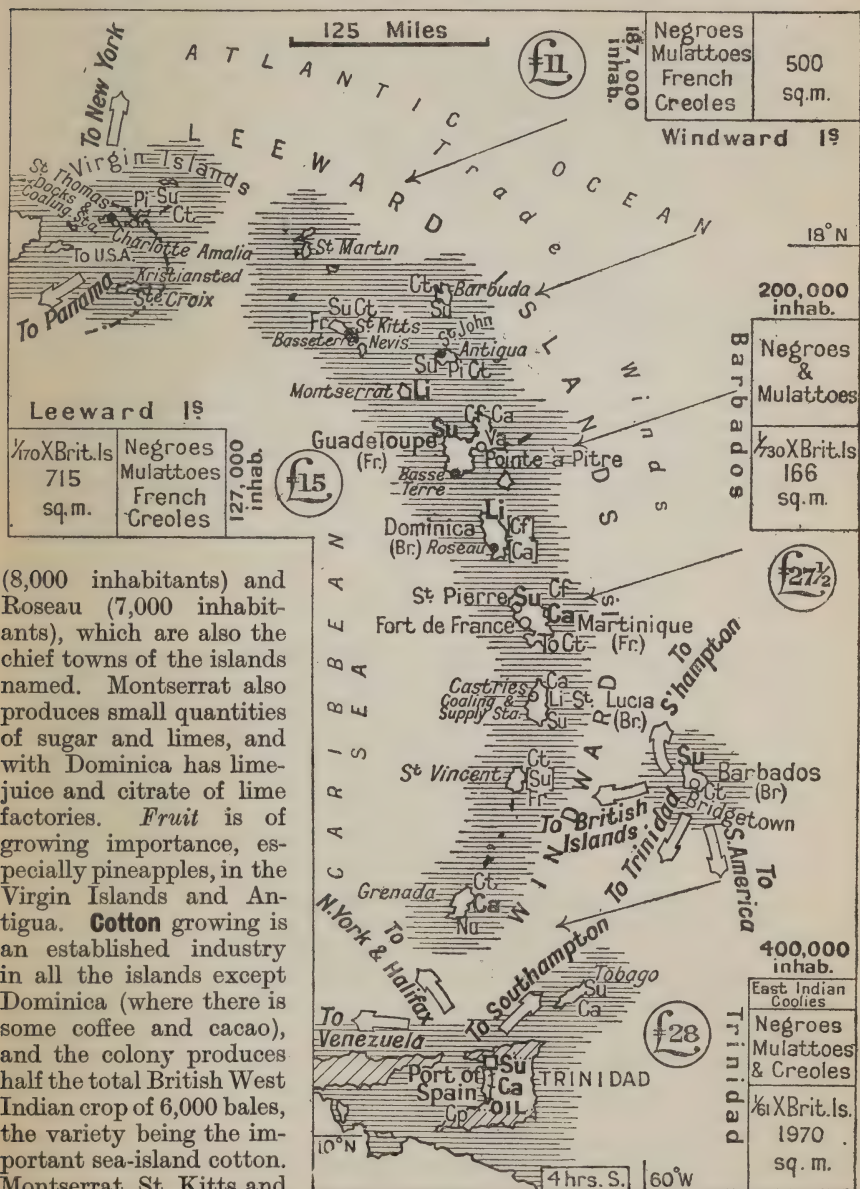


FIG. 34.—BARBADOS, LEEWARD ISLANDS, WINDWARD ISLANDS, TRINIDAD AND TOBAGO.

(8,000 inhabitants) and Roseau (7,000 inhabitants), which are also the chief towns of the islands named. Montserrat also produces small quantities of sugar and limes, and with Dominica has lime-juice and citrate of lime factories. **Fruit** is of growing importance, especially pineapples, in the Virgin Islands and Antigua. **Cotton** growing is an established industry in all the islands except Dominica (where there is some coffee and cacao), and the colony produces half the total British West Indian crop of 6,000 bales, the variety being the important sea-island cotton. Montserrat, St. Kitts and Nevis have the largest output, that of St. Kitts

*British West Indies—Trinidad and Tobago.*

being of superfine quality. Unfortunately the pink boll worm has appeared.

**Trade Relations and General Information.**—The Leeward Islands sugargoes to Canada and the United Kingdom, the cotton to Lancashire, while the lime and lime products and fruit go in part to the United States and in part to the United Kingdom. The imports (flour, meat, manufactures) come chiefly from the United States, the United Kingdom and Canada supplying the balance. The chief banking establishments are the Colonial Bank and the Royal Bank of Canada, and British coins, weights and measures are in general use. There is cable connection with the other West Indies, and indirectly with Britain.

## TRINIDAD AND TOBAGO

**Position, Population, and Area.**—The British Crown Colony of Trinidad, lying off the coast of Venezuela, to the north of the Orinoco Delta, is an island about one-fourth the size of Wales (area 1,860 square miles); but although only one-third of its area is under cultivation, its production is greater than that of the neighbouring Republic on the mainland. Of the population of nearly 400,000 people (rather less than that of Sheffield), one-third are East Indian coolies, and the remaining two-thirds are largely of mixed European (French and Spanish) and African (negro) descent. Thus there is an abundance of relatively cheap labour for the plantations. The capital is Port of Spain with 70,000 inhabitants. Tobago has an important tourist industry. The total trade of the colony averages over £10 millions annually, or £28 a head, exports being slightly in excess of imports.<sup>1</sup>

**Climate and Physical Conditions.**—Trinidad, lying between parallels 10° and 11° north latitude, is in the trade wind belt, but is sufficiently far south to be outside the range of the West Indian hurricanes, a fact of great importance to the fruit industry. Moreover the mountain ridges run from west to east, so that the valleys are sheltered from the prevailing winds. The chief seaport, Port of Spain, is on the leeward coast, facing the mainland of South America. There is everywhere plenty of rain, so that the country is pleasantly wooded, and daily sea-breezes temper the tropical heat.

**Human and Economic Conditions.**—As compared with the South American Republics, the economic development of Trinidad is in a very advanced state. There are many obvious reasons for this: the island is small and compact in area, so that the population is not scattered, and an efficient system of roads and railways is readily constructed and maintained; moreover, it has for many years enjoyed a settled government and a stable currency. The **sugar** plantations were for long the chief wealth of the island, but the export of sugar and molasses is now exceeded in value by that of **cacao**. The **coco-nut** plantations, too, are being more systematically developed, and both nuts and copra are valuable exports. Trinidad has long been famous for its **asphalt** lake, the product of which is loaded direct into tramp steamers, forming the most bulky, although

<sup>1</sup> For Map see Leeward Islands.



## **British West Indies—Windward Islands.**

not the most valuable, export from the island. Recently, however, the output of **petroleum** (2 million barrels in 1920) and of locally refined petrol and lubricating oils has far outdistanced that of asphalt. After local needs have been satisfied, the oil-wells supply an export to the value of over £ $\frac{3}{4}$  million.

**Trade Relations.**—As consumers of the produce of Trinidad, the British Isles rank first, closely followed by the United States; then comes France, followed by Canada. This order is reversed when it comes to the import trade of the island. All kinds of manufactured goods are in demand, especially clothing and textiles, domestic wares, and agricultural machinery: a large quantity of grain, too, is required, especially wheat, flour and rice. The United States ships more goods to Trinidad than does Great Britain, which takes the second place, while Canada takes the third. There is a considerable transit trade to and from Venezuela, for which Port of Spain serves to a certain extent as a distributing centre. San Fernando is a growing port for the oil industry. Trinidad has an unusually good shipping service, and consequently freight rates are low. Oil bunkering is increasingly important, and oil is used on the local railways.

**General Information.**—In addition to the Colonial Bank, the Royal Bank of Canada has a branch at Port of Spain. Dollars and dollar notes are the usual currency. Port of Spain is 13 days from Southampton by the fastest mail route (Royal Mail Steam Packet), the distance being 3,856 miles. The distance to New York is under 2,000 miles. There is an Imperial Trade Commissioner in Trinidad.

## **WINDWARD ISLANDS**

**Area and Population.**—The Windward Islands are a British Crown Colony under a Governor and Commander-in-Chief. They include St. Lucia, St. Vincent, Grenada and the Grenadines (including Carriacou), the latter being half under St. Lucia and half under St. Vincent. The total area is about 500 square miles, and the population 187,000, or 374 to the square mile. The total trade is over £2 millions, or about £11 a head. A majority of the population is negro or coloured, among the whites there is a strong element of French descent.<sup>1</sup>

**Position and General Conditions.**—The Windward Islands form a chain enclosing the Caribbean Sea to the south-east, and lie in latitudes 12° to 14° N. They are mountainous in character and have a rich volcanic soil and a healthy climate. Hurricanes are less frequent than in the Leeward Islands, especially in Grenada, which lies farthest south.

**Human and Economic Conditions.**—The *sugar* output from the Windward Islands is considerable, and the abandoned large estates have been purchased by Government and cut up into small holdings. Grenada is the most productive member of the group, having, like the neighbouring island of Trinidad, a growing *cacao* industry. The export of cacao in 1918 was worth £ $\frac{1}{2}$  million, and the island has also a valuable trade in spices, principally *nutmeg*, worth over £130,000 annually. Both Grenada and St. Vincent grow sea-island **cotton** (nearly 1,000 bales in 1920), that of St.

<sup>1</sup> For Map see Leeward Islands.

**Bulgaria.**

Vincent being the best in the Empire. The same island is famed for its production of *arrowroot* of very high quality. St. Lucia also grows some cacao, besides limes and sugar, and planters are beginning to pay more attention to *coco-nuts*. On this island the chief seaport, Castries, is found: it is a coaling and supply station, the tonnage entered and cleared being over  $1\frac{1}{4}$  million, of which 70 per cent. is British.

**Trade Relations and General Information.**—As elsewhere in the Indies, the bulk of the imports come from the United States, while the exports go to the United Kingdom, Canada having the third place in both export and import trade. In the case of Grenada, however, an unusually large proportion of the exports go to the States, as they offer a large market for the staple product, cacao. British and American gold are legal currency, and British silver and copper. The Royal Bank of Canada and the Colonial Bank operate in the islands, and issue 5-dollar notes. There is cable connection with the other West Indies and indirectly with Britain. Mails reach the Windward Islands via Barbados in 13 to 16 days.

**BRUNEI**

See **British Borneo**, p. 75.

**BULGARIA**

**Area and Population.**—The Kingdom of Bulgaria, which is governed by a Tsar, has an area of about 42,000 square miles, i.e. it is about  $1\frac{1}{4}$  times the size of Scotland, while its population, barely 5 millions, is rather less than that found north of the Tweed. The boundaries of Bulgaria have been repeatedly shifted during the present century, and as a result of the Great War, territory was lost to Rumania (part of the Dobruja) and to Greece (part of Thrace). As a consequence, Bulgaria has no longer any outlet to the *Ægean* Sea. The pre-war trade was about £15 millions, or some £3 a head, its general character being an exchange of foodstuffs and raw materials for manufactured goods. The principal town, Sofia, lies in a mountain-girt plateau, far inland, but its population now numbers well over 100,000. The other leading centres are Philippopolis, in Eastern Rumelia, Varna, the chief seaport, and Rustchuk, a river-port on the Danube, which are about the size of an average English county town, i.e. with 40–50,000 inhabitants. The Bulgars are of Slavonic race, and speak a Slavonic language, although they take their name from a Tatar horde who conquered the country in the seventh century, but became merged in the subject peoples. There are also Turks and Greeks along the seaboard and in the towns. The prevailing religion is the Orthodox Greek Church. The percentage of illiterates among the older generation is high, but it is much less among the younger adults, and the great majority of children are now under instruction.

**Position and General Physical Conditions.**—Bulgaria occupies the eastern half of the Balkan Peninsula, lying between latitudes  $41\frac{1}{2}^{\circ}$  N. and  $44^{\circ}$  N., i.e. in the latitudes of Northern Spain. The Balkan

## Bulgaria.

Mountains, a lofty chain running through the country from west to east, divide it into two distinct regions—a slightly elevated plain to the north, which is bounded by, and drains to, the Danube, and a sheltered plain to the south (Eastern Rumelia), which is drained by the Maritza through Greek territory to the Ægean Sea. The Northern or Danubian Plain has a climate of a Continental character, with hot summers and very cold winters, and a maximum rainfall in summer. Eastern Rumelia, on the other hand, is sheltered from the cold northerly winds, and has somewhat milder winters, while the hot summer months tend to be the driest. Sofia, by reason of its elevation, has a more moderate summer heat, but lies under snow in winter. Eastern Rumelia is bounded to the south by the Rhodope Mountains, while a chain of hills, the Sredna Gora and Karaja Dagh, running parallel to the



FIG. 35.—BULGARIA.

Balkans, shut off the valley in which are the famous gardens of roses from which perfume is made. The mountains are forested, largely with oak and beech, besides pine and fir on the higher ridges of the Balkans, but there has been much careless destruction of timber, and a policy of conservation and more scientific exploitation on the part of the Government is very desirable.

**Human and Economic Conditions.**—The Bulgars are in the main a nation of peasant farmers, wedded to traditional methods of cultivating the soil, and slow to adopt such improvements as up-to-date machinery, the use of fertilisers and the rotation of crops. Hence the country is producing below capacity, nor is the quality and variety of the produce all that it might be. On the northern plain **wheat** and **maize** are the staples, with oats and rye as of secondary importance. To the south of the Balkans,



## Bulgaria.

wheat and barley are the leading cereals, tobacco, fruit and vines are grown, and silk culture is carried on. The rose gardens for attar of roses have already been mentioned. Under normal conditions, and when the harvest is good, a surplus of cereals is available for export, and tobacco is also produced far in excess of local demands. The quality is, however, poor, for the best tobacco region, that on the Ægean Sea, east of Kavalla, producing this famous Turkish leaf (Xanthi and Gumurjina) has been lost to Greece. This region, with the lower Maritza valley, also produced silk, but the bulk of the silk came from Eastern Rumelia, and about 150 tons of cocoons are exported to the conditioning centre of Milan. A minor crop is the rice, grown under irrigation round Philippopolis, while a little cotton is also produced.

Of the animal industries, sheep breeding is the most important, the animals being driven up into the mountains in summer and brought down to the lowlands in winter. There were  $7\frac{1}{2}$  million sheep in 1917, but they are of a coarse-woolled variety. Cattle are more important in the north, while buffaloes are used as draught animals in the south. Pigs are fed on the acorns and beech-mast of the forest, and goats are also widely kept for milk where cattle are absent. As usual in a farming country, poultry are very numerous, and eggs are an article of export.

The country is rich in minerals, which for lack of capital and transport facilities remain undeveloped. There is a State coal mine at Pernik, near Sofia, and other concessions are being worked in the Balkans, near Trevna, but the output is small, and wood is in general use as fuel. There are extensive oil-shale deposits near Sofia, Stara Zagora and Philippopolis, and the commercial exploitation of these was begun during the War, but the future of the industry is doubtful. Iron ore is abundant, and copper, manganese and zinc deposits are known to exist. All minerals belong to the State.

Apart from a few isolated factories, e.g. for woollens at Sliven and for cottons at Varna, besides flour-mills, saw-mills, breweries and small engineering shops, industry in Bulgaria is still in the handicraft stage. Bulgarian woollen homespuns and embroideries find a market, but are largely being superseded by cheap imported textiles.

**Trade Relations.**—The main railway route through Central Europe to Constantinople passes via Belgrad through Sofia and Eastern Rumelia, and much of the former trade of Bulgaria was with Austria and Germany, which imported cereals, timber, cattle, tobacco and eggs in return for textiles and hardware. The Danube also affords a route-way to Hungary and Austria, while sea-board trade is through the Black Sea ports of Varna and Burgas, and thence by the Mediterranean to Italy, Great Britain and Belgium. At present Britain takes little beyond attar of roses, since there is temporarily no surplus of grain or timber.

**General Information.**—The monetary unit of Bulgaria is the *lev*, equivalent to the franc; 25·22 *leva* normally equal one pound sterling. Foreign gold francs were formerly in circulation, but the currency is now mainly paper, issued by the National Bank. The London County Westminster and Parr's Bank is agent for the General Bank of Bulgaria.

The metric system is in general use. Mails take three days to reach Sofia. There are British Vice-Consuls at Sofia, Burgas and Rustchuk.

*Canada.*

## BURMA

See **India**, p. 280.

## CAMEROONS

See **French Equatorial Africa**, p. 225.

## CANADA.

**Area and Population.**—The Dominion of Canada comprises nine Provinces—Nova Scotia, Prince Edward Island, New Brunswick, Quebec, Ontario, Manitoba, Saskatchewan, Alberta, British Columbia—and two Territories, the North-West Territory and Yukon. It has an area of  $3\frac{1}{2}$  million square miles, as compared with Australia and the United States, which each cover about 3 million square miles. About one-third of Canada, however, is in such high latitudes (north of parallel  $60^\circ$ ) as to have potentialities only in the direction of lumbering, hunting, fishing and mining, while of the remainder, vast tracts remain to be settled as communications are opened up. Broadly speaking it may be said that east of Winnipeg the population is found between parallels  $42^\circ$  and  $49^\circ$  N.: west of Winnipeg, between parallels  $49^\circ$  and  $55^\circ$  N. The population is estimated at 9 millions, an increase of 70 per cent. during the twentieth century. Of this number, about 6 millions are Canadian born,  $\frac{3}{4}$  million from the United Kingdom, between  $\frac{1}{4}$  and  $\frac{1}{2}$  million from the United States, and about the same number from various parts of Europe. There are also about 50,000 Orientals—chiefly Chinese and Japanese—who are settled in British Columbia, and 110,000 aboriginals, North American Indians and Eskimos. Nearly 2 millions of the Canadian born are French-speaking, and of French ancestry, and in the Province of Quebec they form the majority of the rural population.

The external trade of Canada averaged in 1917–20 a total of £54 per head of population—thus approaching the figure for New Zealand, which is the highest on record for a country other than an exploited territory (e.g. Alaska). The imports were valued at £200 millions (£22 per head), and the exports at £288 millions (£32 per head). The inter-provincial trade is enormously in excess of these figures, which would also be higher if the appreciation of the dollar were taken into account.

**Position and Climate.**—Canada occupies the northern part of the Continent of North America—stretching from within the Arctic Circle to latitude  $42^\circ$  N.—the latitude of Rome. Neighbouring countries are the island Dominion of Newfoundland, the United States of America—having a frontier merely of river, lake, and land—and the United States Territory of Alaska. Across the Atlantic, Canada faces Great Britain and France, across the Pacific, Siberia and Japan.

Three types of climate may be distinguished in southern, i.e. occupied Canada. The first is the climate of Eastern Canada, including the provinces of Nova Scotia, New Brunswick, Prince Edward Island, Quebec and Ontario. It is a climate of extremes, hot summers, cold winters, with plenty of rain and deep snow. It is modified in the three Maritime Provinces, where owing to the great length of seaboard these extremes are

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somewhat moderated, and sudden changes of temperature, e.g., late frosts, are rare. Hence the seaports here—Halifax and St. John—are open in winter, whereas Quebec and Montreal are closed by ice. The "eastern" type of climate is also modified in the Lake Peninsula—that part of Ontario which lies between Lakes Huron, Erie and Ontario. Here owing to the more southerly latitude the summer sun has greater power, and owing to the great sheets of water almost surrounding the land sudden changes of temperature are here also rare. Consequently it is in the two last-named (modified "eastern") regions that the most famous fruit-growing belts of the Dominion occur.

The second type of climate is that of the prairies, and includes the Provinces of Manitoba, Saskatchewan and Alberta. The summers are hot, the



FIG. 36.—CANADA: NATURAL REGIONS.

winters very cold, there is a moderate rainfall in spring and early summer, and a light snowfall in winter. The weather, owing to the dry atmosphere, is peculiarly bright and exhilarating. Towards the north of the provinces the length of winter increases, but owing to the high latitude, the summer days are very long and hence crops grow very fast. Towards the south-west of Alberta the rainfall diminishes to such an extent that irrigation becomes necessary for really successful agriculture.

The third type of climate is that of the Rocky Mountains and Pacific region, including the Province of British Columbia. Along the seaboard it is mild and rainy, as in Great Britain: up on the high mountains it is cold and sunny, with heavy snow in winter: in the valleys sheltered from the sea-winds it is very dry and sunny, and free from any great extremes of heat and cold. The warm westerly winds and warm ocean drift keep the shores of British Columbia always ice-free, so that the ports



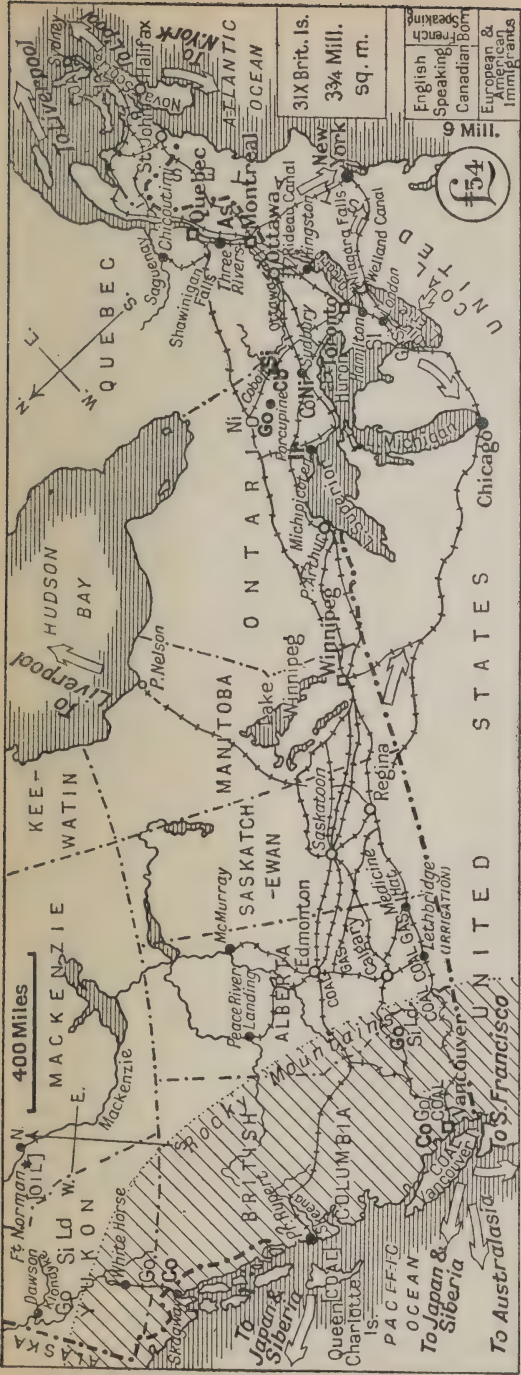


FIG. 37.—CANADA : MINERALS AND COMMUNICATIONS.

of Vancouver and Prince Rupert remain open although they are in much higher latitudes than the S. Lawrence estuary and Great Lakes which are ice-bound for four or five months of the year.

**General Physical Conditions.**—The physical features and mineral wealth of Canada are very closely dependent on the geological structure, which will therefore be briefly described. The Maritime Provinces form the northern fringe of the Appalachian Mountain System of the United States. The rocks are old and are very much

folded and crumpled. The mountains have been worn down to smooth rounded outlines, and a rich soil has accumulated in the valleys. Finally the whole region has subsided and the sea has entered the main valleys, e.g. the Bay of Fundy, thus separating off Nova Scotia, Cape Breton Island and Prince Edward Island, and providing many deep, sheltered harbours. As in the United States, this geological division has coal, iron and limestone.

The second region is outlined by a fringe of waters—lakes and rivers. Commencing in the north-west, Great

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Bear Lake, Great Slave Lake, and Lake Athabasca form a series overflowing to the Mackenzie river system. Lakes Winnipegosis, Winnipeg and Lake of the Woods have an outlet by the Nelson to Hudson Bay, while the Great Lakes—Superior, Huron, Erie, Ontario—form a chain from which the S. Lawrence flows with widening estuary to enter the Atlantic about latitude 50° N. Within this vast semicircle of waters is a surface of very ancient rocks, worn smooth for the most part, but rising to a considerable elevation in the Laurentian Highlands to the north of the S. Lawrence. The rocks are too old to contain coal measures, but they are rich in various precious, semi-precious, and base metals. The region has been scoured by a great ice-sheet in a past age, and is irregularly covered with a mantle of fertile boulder-clay. Moreover, the ice-scouring has caused irregularities in the river-beds, which result in waterfalls, so that this is a region of almost limitless water-power.

The third physical region—the great plains or prairies—forms a triangular wedge between the fringing lakes and the Rocky Mountains. It is built of sedimentary rocks lying almost horizontally, and shaped into a rolling country by the rivers that cut wide valleys across them. The elevation of the plains gradually increases from 800 ft. in the east to 3,000 ft. at the foot-hills of the Rocky Mountains. The rocks include coal-measures, of which there are vast beds; they are in places impregnated with natural gas, and it is possible that they will also yield oil in abundance. The soil is a rich deep loam, and in the Red River valley of Manitoba, once a lake bed, it is composed of fine alluvium of great fertility.

The fourth physical region is that of the Rocky Mountains. Here there are well-defined trend lines—the lofty mountains, deep valleys, coastline and bordering islands have their axes from north-west to south-east, although there are exceptional valleys, e.g. the Middle Fraser and the Okanagan Valley, which cut the region obliquely in a north-south direction. The country combines the aspects of Switzerland and Norway, with its snow-clad peaks, glaciers, and deep narrow lakes as in the Alps, and its fiord-fringed coast with innumerable off-shore islands and sheltered sounds, as in West Scandinavia. Like the two countries it resembles, British Columbia has an abundance of water-power.

The prairie lands of Manitoba, Saskatchewan and Alberta are clothed with natural pasture, almost treeless in the south and south-west (where it is driest), but becoming more park-like to the north and north-east, where the grassland is dotted with woods and copses, and gradually merges into the great forest which covers the rest of the country, save for the Barren Lands in the Far North. These forests are of softwoods—larch, spruce, hemlock, fir and pine—but in south-east Canada, round the lower Lakes and in the Maritime Provinces, there is an admixture of hardwoods—oak, elm, beech, maple and poplar. It is in this eastern region of mixed forests, the longest settled, that the greatest proportion of land has been cleared for agriculture. In the western mountain zone, in spite of the mild climate at low elevations, coniferous (softwood) trees predominate, but near the coast they often assume giant proportions, e.g. in the case of the Douglas fir and the red and yellow cedars.

**Human and Economic Conditions.**—In spite of the rapid growth of her lumbering, pastoral, mining and manufacturing activities, Canada is pre-eminently an agricultural country, for in 1917–18 **wheat** and



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wheat-flour formed 30 per cent. of her enormous export trade. Saskatchewan, Manitoba and Alberta (the Prairie Provinces), are, in the order named, the chief wheat-producing areas, and Winnipeg, commanding the gateway to these provinces, and hence the chief collecting and distributing centre, has 180,000 inhabitants, being the third city in the Dominion. Ontario has a much smaller area under wheat, but the yield per acre is higher, owing to the more intensive methods of farming practised in the longer settled east.

Canada's yield of about 210 million bushels of wheat (263 million in 1920) is 6 per cent. of the total world production, and is surpassed only by the yields of the United States and of India, since the disintegration of Russia.

The second cereal in point of acreage, the first in point of yield (over 500 million bushels in 1920), is **oats**, which is largely utilised within the Dominion for feeding stock. Here again Saskatchewan, the region of most phenomenal growth during the last two decades, holds the first place, but Ontario is second and Quebec fourth, for these two moister regions are pre-eminently the dairy countries of Canada, and take the lead also in *hay*, *clover* and *potatoes*.

Of the 10 million **cattle** in the Dominion, no fewer than  $3\frac{1}{2}$  million are



FIG. 38.—CANADA : AGRICULTURE.

milch cows, and the 1919 production of **cheese, butter**, preserved milk and cream was valued at £25 millions, nearly two-thirds being retained for home consumption. Since hog-raising can be profitably combined both with dairying and cereal farming, the number of **pigs** has risen to nearly 4 millions, a ratio of pigs to persons of 1 to  $2\frac{1}{4}$ , which is higher even than that in Denmark (U.S.A. 1 to  $1\frac{1}{2}$ ). The bacon remaining over for export in 1917-18 was worth £14½ millions, and there was in addition a surplus of hams and lard. *Beef* cattle are very largely raised in Saskatchewan and Alberta, for these, the drier of the prairie provinces, have still many large ranches, where the young steers range all the year, feeding on the rich grasses in summer, and in winter upon the natural hay which is formed in autumn. The warm, dry *chinook* wind which blows down from the Rockies prevents any depth of snow accumulating on the ground in winter. The beef export is worth £3¼ millions, the beasts being slaughtered at Montreal.

There is, however, in Canada a growing tendency towards mixed farming, as opposed to carrying on tillage or stock-raising alone. This change has been necessitated by the partial exhaustion of the soil in the older wheat-lands, whereby rotation of crops and the use of fertilisers was seen to be desirable. The result is that meat-packing establishments and creameries are now to be found throughout the prairie provinces, and the cattle have



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spread eastwards from the drier west, while the practice of dry-farming, the improvement of breeds of wheat, and the construction of irrigation works have all led to the westward advance of the plough. **Alfalfa** is a fodder crop peculiarly suited to regions of low rainfall, **flax** is widely grown for linseed in Saskatchewan, and maize as a green crop in Manitoba. Lethbridge, on the C.P.R., is a centre at which the Government has established *irrigation* works, for there is abundance of water in the foot-hills of the Rockies, which can be utilised on the prairies, as has been done so successfully in the United States.

The spread of grain cultivation northwards, with the opening of the Grand Trunk Pacific and Canadian National Railway, has been attended by remarkable and, to many people, unexpected success. In the higher latitudes it is found that the long hours of summer daylight cause the crops to ripen more quickly than farther south, so that the prolongation of the winter season is immaterial.

The three leading **fruit** areas of the Dominion are in regions free from the rapid temperature changes that mark the prairies. Nova Scotia has its famous apple orchards (in the Annapolis valley), from which there is a large export : the Lake Peninsula of Ontario has peach orchards and vineyards, besides producing apples, pears, plums, cherries and soft fruits : British Columbia has apple orchards, and soft fruits, and in the dry sheltered valleys such as Okanagan has peaches, grapes, apricots, plums and tomatoes, grown partly under irrigation, and marketed in the Prairie Provinces.

Although the acreage is small ( $\frac{1}{5}$  of that in Ireland), it is of interest to note that **flax** is being grown for fibre in Ontario. The combination of world shortage, high prices and labour-saving machinery has made this crop profitable, although it has generally been considered to be limited to regions where a dense population with a low standard of living provided cheap labour for pulling, retting and scutching.

On the Canadian farm, particularly in the West, there is commonly electric light and telephone installation, the farmer owns one or more motor cars and trucks, while cultivation is by means of tractors and stationary engines. The standard of living and of culture is usually relatively high, so that the classes of goods in demand differ greatly from those required by the average European farmer.

Canada's vast untouched forests, found in combination with cheap water transport and cheap power, make her *lumbering* and derived industries the most important in the world. Sawn lumber (including laths, shingles, staves, etc.), wood pulp and paper together make up an export worth £26 millions. A recent feature has been the remarkable development of the local consumption of wood pulp in the manufacture of **paper** and especially of newsprint. Since 1914 the Canadian export of the latter commodity has leapt ahead of that of Norway and Sweden combined, nearly the whole going to the United States, where the demand is enormous. The Shawinigan Falls on the St. Maurice River, the Montmorency Falls near Quebec, the Chaudière Falls near Ottawa, and the Saguinay River Falls farther east are among the most noted of the power centres where there are sawmills, pulp and paper mills, while at Sault Ste. Marie between the two upper Great Lakes, is the greatest pulp mill in the world. British Columbia, with forests and waterfalls on the seaboard itself, has also exceptional advantages which have been seized upon by manufacturers. In this industry, as in so

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many others, it is the growing custom of United States firms to set up a branch plant in the Dominion. The comparatively treeless prairies offer a very large market for the lumber of the west and east.

The remoter parts of the forests, and especially the Mackenzie Basin, are still rich in furred animals—fox, lynx, bear, skunk, mink, marten, besides the rarer ermine and beaver—and these are systematically hunted and trapped, the export of **furs** amounting to nearly £4 millions. Fox-ranching has proved highly successful in Prince Edward Island, the pelts sold in 1918 being valued at £ $\frac{1}{4}$  million. The animals now number over 15,000.

Owing to its position in high latitudes the *fisheries* of Canada, both in the seas and in inland waters, are very important, the products being valued at £10 millions, of which half is exported. British Columbia takes the lead, with the great **salmon** fishing and canning industry of the Fraser and Skeena Rivers, and the **halibut** industry along the coast. The latter has shown a decline, and protective measures are under consideration: the centre is Prince Rupert, the terminus of the Grand Trunk Pacific Railway, where there is a large freezing plant. Nova Scotia sends out fishing fleets from Halifax, Yarmouth, and lesser ports, to the shallow banks which fringe Eastern Canada, and are rich in **cod**. Haddock, herrings and hake are also important as in the similar fishing grounds of the North Sea. Inshore there are very valuable **lobster** fisheries, giving rise to a canning industry, and in many of the shallow, sheltered bays there are **oyster** beds. New Brunswick and Prince Edward Island share in these fisheries on a smaller scale.

The *mining* enterprises of Canada yield products valued at £40 millions, and there is no doubt that further valuable discoveries will be made in areas so far unprospected. Nearly half of the total output is from Ontario, which possesses, to the north of Lake Huron, one of the richest mining districts in the world. There are **nickel** mines at Sudbury, in which **copper** is also found, and the same metals also occur at Cobalt, together with large quantities of *silver*, *cobalt*, and *arsenic*. **Gold** is found farther north at Porcupine, and in this neighbourhood further large nickel mines are worked, while at Michipicoten, on the north shore of Lake Superior, the largest **iron** deposit in the Dominion occurs. Canada has a virtual monopoly of nickel, cobalt and arsenic, a factor of importance in the development of her steel industry. The great age of the rocks of Central Canada precludes the discovery of coal in this great mining region, but the coal-mines of the United States are conveniently placed on the opposite shores of the Lakes, and there is a considerable import, not only for smelting the metals, but for domestic purposes. Canada's longest-known **coal**-mines lie at the two extremes of the Dominion, in Nova Scotia and Vancouver Island. About half of the total output of 14 to 15 million tons is raised in Nova Scotia and Cape Breton Island, while the Vancouver and Crow's Nest Pass mines of British Columbia yield 3 million tons. More recently vast fields of bituminous and anthracite coal have been discovered and mined in Alberta, where the yield has now reached 4 million tons. Vancouver coal is handled at the port of Nanaimo.

The Rocky Mountains contain, besides coal, an abundance of iron, copper and gold. British Columbia produces more than half the Dominion's **copper**, and like the more famous Klondyke District of Yukon Territory farther north, has valuable **gold** mines, besides *silver-lead*. Quebec produces



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*magnesite*, *chromite*, and *molybdenum*, all of importance in the iron and steel industry.

Of non-metallic minerals, **asbestos** ranks next to coal, Southern Quebec producing 85 per cent. of the total world supply. The same Province is a leading source of the world's *mica*, essential to electrical industries. *Natural gas* is an important asset to many of the prairie towns, e.g. Medicine Hat and Calgary—and there is strong probability that the oil-field discovered in the north-west of the Great Plains near Fort Norman will be highly productive. At present the chief wells are in the south of the Lake Peninsula, where there is also gas, and the output is small (30,000 barrels). The total value of the various minerals in 1917, reckoned in millions sterling, was as follows: Nickel, £6½, copper £6, silver £3½, gold £3, coal £9½, asbestos £1½. To the list **zinc**, from the north of Lake Superior, has recently been added, leaving only tin as a leading metal in which Canada is lacking.

The output of the **manufacturing** establishments of Canada is valued at £600 millions, of which the greater part is consumed within the Dominion. There is, however, a growing export of Canadian manufactures, especially to other parts of the British Dominions, and in the case of special products, e.g. paper, to the United States. The important part played by cheap electric power has already been touched upon, and figures are available showing the power in operation in 1919. Ontario has the first place, with 985,060 h.p. developed, of which 450,000 h.p. is supplied by the plants, owned by the Provincial Government, built on the Canadian side of the Niagara Falls, in the Lake Peninsula. Works under construction will develop a further 300,000 h.p. from these Falls. Quebec, with numerous rivers dropping from the Laurentian Highlands to the level of the St. Lawrence, has the second place with 842,761 h.p., and British Columbia the third with 312,423 h.p. The three provinces stand in the same order as regards manufacturing importance. The developments of 1921 include 168,000 h.p. for Winnipeg from the Winnipeg River, and installations on the Abitibi and Mattagami Rivers in north-east Ontario to supply power to the pulp mills and mines. The official estimate is that present development represents an annual equivalent of 18½ million tons of coal, and that only 5·9 per cent. of the recorded power resources is at present utilised.

The number of persons employed in industry is nearly 700,000 (nearly 8 per cent. of the population), a large proportion being absorbed by the flour and saw mills, creameries, cheese, paper and pulp factories. The *textile* industries, and the numerous branches of the *iron* and *steel* industry are, however, very important. There is no such great concentration of individual industries in a single area as occurs in Britain, but the *cotton* manufacture centres largely in the Province of Quebec, in the St. Lawrence valley, where Montreal (800,000 inhabitants) is the leading commercial city of the Dominion. The raw cotton is necessarily imported, as is much of the wool, since there are only about 4 million sheep scattered through the country. A large number of iron and steel works are found in the Lake Peninsula of Ontario, where Toronto (475,000 inhabitants) is the leading manufacturing centre. It is the main port of entry for United States trade, and has splendid facilities for communication by water and rail both with the States and with other parts of the Dominion. (The part played in Canada's industrial development by the propinquity of the States cannot be over-



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looked, for in addition to material "goods" there enter by the frontier ports such immaterial yet valuable things as ideas and methods, skill and experience.) Toronto has iron foundries and agricultural implement works, shipbuilding yards and railway shops, while Hamilton (82,000 population) farther along the Lake shore, has rolling and planing mills, iron implement and sewing-machine factories, and Kingston, the lake port for the Rideau Canal to Ottawa, has also agricultural implement works and engineering shops. London (50,000 population) on the main railway route to the States is another iron and steel manufacturing town. There are, besides, the enormous Dominion Iron and Steel Works at Sydney, Cape Breton Island, owing to the presence there of both coal and iron, while the iron deposits of Lake Superior have led to smelting at Port Arthur, and to the erection of iron and steel works at Sault Ste. Marie, between the Lakes. Proposals are also being made for the establishment of a large-scale industry in British Columbia, where there are both coal and iron. The output of pig-iron varies from three-quarters to one million short tons.

Following the textile and iron and steel industries, the leather trade, principally *boots and shoes*, is of great importance, but the complete list of the Dominion manufactures would include almost every article, from wire nails to pianos and automobiles. Mention should be made of the *chemical industries*, including the electrolytic extraction of *aluminium* at Shawinigan Falls, and the fertiliser and cyanide works at Niagara Falls. The large deposits of *salt* in the Lake Peninsula (S.W. Ontario) have also led to the erection of chemical factories. Canada still, however, forms an important market for manufactures, purchasing abroad iron and steel goods to the value of £32 millions, and textiles to the value of £14 millions. The bulk of the former class, and a large proportion of the latter, is obtained from the United States—partly owing to the similarity of needs and tastes in the two countries and partly as a result of proximity.

The *shipbuilding* industry of Nova Scotia and British Columbia has been fostered by the Government, and government steamers run from the eastern ports to the West Indies and South America, and from the western ports to the Orient. The inland transport system is also largely under government direction, since in a country of such vast distances, having such bulky staple products, railway construction must precede and not follow settlement. The Canadian Government Railway runs from Quebec to Winnipeg through the hitherto untouched clay belt to the north of the settled areas of Quebec and Ontario, and the Government is building the railway from Saskatchewan to Port Nelson, Hudson Bay, which will give a shorter route to Europe for the wheat crop during the summer months. Of the two lines, with their branches, that have thrown open the more northern parts of Saskatchewan and Alberta, and which go through the Yellowhead Pass into British Columbia, the Grand Trunk Pacific is under government management, and the Canadian Northern has become the Canadian National. There are other government lines besides. The railway network is now very complete in the densely peopled parts of Quebec and Ontario, and in the south of the Prairie Provinces, and there are nearly two thousand miles of electric railways in operation besides the main steam lines. There is also connection at numerous points with the railway system of the United States.

Canada shares with the States the unrivalled waterway afforded by the

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Great Lakes and St. Lawrence River. Ocean-going steamers drawing 35 ft. ascend to Montreal, where the Lachine rapids necessitate the construction of a canal. From this point up to Lake Erie, navigation is by small steamers drawing not more than 14 ft., a limit set by the Welland Canal, constructed by the Government to surmount the obstacle of the Niagara Falls and Gorge. Above this point larger vessels drawing 20 ft. can ply on the remaining four lakes, for this is the depth of the "Soo" Canals which avoid the rapids between Huron and Superior. The work of enlarging the Welland Canal to this depth is in progress, and there is little doubt that some early date will see the locking of the St. Lawrence and the construction of channels allowing ocean-going vessels to ascend without breaking bulk as far as Port Arthur and Duluth, the water-gates of the grain belt. An international joint commission has jurisdiction over the boundary waters between Canada and the United States, and in their use precedence is given in the following order, (1) for domestic and sanitary purposes, (2) for navigation, (3) for power and irrigation.

**Trade Relations.** — The outstanding feature of Canadian trade relations is the dominating and contrasting parts played by the United Kingdom and the United States respectively. In 1917-18, 54 per cent. of the Dominion exports went to the Mother Country, but only  $8\frac{1}{4}$  per cent. of the imports came from this source. On the other hand, the United States took only 25 per cent. of Canadian produce, yet supplied 82 per cent. of the import trade. The figures before the War, although not so extreme, showed the same tendency, Great Britain had 45 per cent. of the export, but only 20 per cent. of the import trade, while the States took 42 per cent. of the total and sent in 66 per cent. These figures are, however, to some extent misleading, in that both Great Britain and the United States do a large entrepôt trade, so that they are not necessarily the actual countries of origin or of destination of imports and exports. Canada has a large demand for such tropical products as sugar, coffee, fruits, nuts, rubber, spices, cacao, etc., and that there has latterly been more direct buying of these commodities is shown by the appearance of imports from the British East Indies to the value of  $1\frac{3}{4}$  per cent. of the total, and from the West Indies to the value of 1 per cent. In exchange for this tropical produce Canada has grain and flour, canned and preserved foods to offer, as well as manufactured goods. France took 13 per cent. of Canada's exports (largely food-stuffs) in 1917-18, but her pre-war return trade of  $2\frac{1}{4}$  per cent. (textiles, apparel and wines) had nearly disappeared, owing to war conditions. The latter are, of course, responsible for the enormous drop in exports from the United Kingdom, and later figures show that a proportion of the lost trade has been recovered. Canada's trade policy is to establish a reciprocal exchange of food-stuffs with such areas as the West and East Indies and South America, carrying it in her own merchant ships, and to find new markets for her manufactures. These are in demand in the agricultural and pastoral regions of Europe, e.g. the Baltic countries and Roumania, and in the British Dominions, e.g. New Zealand, Australia and South Africa, which give preferential treatment to British-made goods. Expert opinion is to the effect that British manufactures could be marketed in Canada even in the face of United States competition provided capable agents are appointed. It should be realised that the East and the West must be treated as two distinct

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territories, Toronto or Montreal being appropriate centres for the former, Winnipeg or Vancouver for the latter.

The Canadian Government Merchant Marine had in commission thirty-five vessels in October, 1920, with thirty to follow. Direct freight services are established with Great Britain, Newfoundland, the British West Indies, Cuba, British Guiana, Latin South America, India, Singapore, and Java, all sailing from eastern ports, while from the Pacific there are sailings to China, Japan, New Zealand, Australia, and also to Java, Singapore and India. These services are operated in connection with the Canadian National Railways.

All the Canadian harbours, including Halifax, St. John, Sydney, Montreal and Quebec in the east; Vancouver, Victoria, Esquimalt and Prince Rupert in the west, are excellently equipped, and capable of accommodating the largest vessels. Port Nelson, the seaboard terminal of the Hudson Bay railway, is being improved, and as the short sea route through this great bay is open at harvest-time, from July to October, it will handle a part of the vast grain trade and relieve the present congestion.

**General Information.**—The money unit in Canada is the dollar of 100 cents, the value of which is fixed by law: 4·86 $\frac{2}{3}$  dollars equal one gold sovereign. There is a Mint at Ottawa, issuing gold, silver and bronze coins, and the Dominion Government issues 5, 4, 2, 1 dollar, and 25-cent. notes. The Banks are allowed, under stringent conditions, to issue notes of 5 dollars and upwards. The legal weights and measures are those of the United Kingdom, except that the hundredweight is declared to be 100 lb., and the ton 2,000 lb. (short ton), as in the United States.

The chief banking establishments are the Royal Bank of Canada, the Bank of Montreal and the Canadian Bank of Commerce, all with London offices.

Subsidised mail steamers bring Montreal within eight days of London, and within eighteen days of Yokohama, Japan. There are British Trade Commissioners at Montreal, Toronto and Winnipeg, and Imperial Trade Correspondents at Calgary, Edmonton, Vancouver, St. John, Halifax and Quebec.

## **CANARY ISLANDS**

**Area and Population.**—The Canary Islands rank as a Province of Spain, and cover an area of 2,800 square miles, supporting over half a million people. The chief islands are Teneriffe, Grand Canary, Palma, Hierro, Gomera, Fuerteventura and Lanzarote. The chief port and seat of government is Santa Cruz de Teneriffe, with 82,000 inhabitants. Las Palmas on Grand Canary has 70,000: both are important bunkering and calling stations for vessels bound to and from Cape Town and South America. Separate figures for the trade of the Canaries are not available, but the islands are normally prosperous, and the total must run into several millions, there being an import of ships' stores and luxury articles (for the foreign tourists and winter residents), as well as of necessities for the islanders. The latter are mainly of Spanish blood, and the Spanish language is spoken.

**Position and General Information.**—The Canaries lie



## Canary Islands.

in latitude  $29^{\circ}$  N. and  $14^{\circ}$ – $18^{\circ}$  W., some 60 miles from the desert coast of Africa. For the greater part of the year they are in the trade wind belt, and the weather is hot, dry and sunny. In mid-winter they receive some rainfall from the stormy Atlantic winds, but on the whole there is a deficiency



FIG. 39.—CANARY ISLANDS.

of water, and many parts of the islands bear almost a desert aspect. Where, however, the land is watered, either naturally or artificially, by springs or streams, and where, as on the upper slopes of the volcanic peaks (e.g. Tenerife), the clouds rest and moisten the soil, the vegetation is luxuriant, and consists of palms, evergreen trees and flowering shrubs.

Apart from the tourist traffic and port activities, the chief industry of the Canaries is agriculture, irrigated land commanding a very high price. The wine and cochineal industries, formerly of importance, have declined, their place being taken by the cultivation of *fruit* and *vegetables*. These are supplied to ships, and are also exported to the extent of tens of thousands of tons. *Bananas* and *tomatoes* are of first importance, followed by early *potatoes* and *onions*. All these find a ready market in Great Britain, as well as in Spain, and the former country plays an important part in supplying the coal, textiles, hardware, building materials and miscellaneous manufactured goods which are in demand. The competition of the West Indian banana has latterly been severely felt.

Currency, weights and measures are as in Spain. The Bank of British West Africa has branches at Las Palmas and Santa Cruz. The Canaries are an important cable station between Europe and Africa, and between Europe and South America.

There are British Consuls at Las Palmas and Santa Cruz, Vice-Consuls at Orotava (on Tenerife) and Santa Cruz de la Palma.

**CAPE OF GOOD HOPE**

See **British South Africa**, p. 105.

**CAPE VERDE ISLANDS**

See **Verde Islands, Cape**, p. 489.

**CAROLINE ISLANDS**

See **Japanese Pacific Islands**, p. 312.

**CAUCASIA, INCLUDING THE AZERBAIJAN, GEORGIA, KUBAN, AND TEREK REPUBLICS**

**Area and Population.**—The Republics named are grouped on either slope of the Caucasus Mountains. Azerbaijan has an area of 36,350 square miles and a population of about  $4\frac{1}{2}$  millions ; Georgia has an area of 45,000 square miles, and a population of  $3\frac{1}{5}$  millions ; Kuban has an area of 36,500 square miles and a population of 3 millions ; Terek has an area of 28,000 square miles and a population of  $1\frac{1}{4}$  millions. Thus the total area of the region is 146,000 square miles ( $1\frac{1}{5}$  times the British Isles), while the population numbers about 12 millions. The Transcaucasian region (Azerbaijan and Georgia) has a population of very mixed origin, including Russian immigrants and officials, Georgians (a distinct branch of the Indo-European family), Armenians, and Tatars (Mongols), with an admixture of Jews and Persians. In Cis-Caucasia, too, the minority only are Russians (including Cossacks), the Mongol element being very strong, and including Tatars, Kalmucks and Turcomans, besides some Armenians, Georgians and German colonists. The Georgians, Armenians and Russians are Christians, while the various Mongol peoples are Mohammedans : thus there is religious as well as racial diversity, and there are many almost uncivilised elements among the population. Yet the region is of great importance to the outside world, since it includes the valuable Russian oil-fields, besides large cereal-growing areas, and has much partly developed mineral wealth. A large majority of the population are illiterate, but in Georgia facilities for secondary and technical education are increasing, and a University has been established at Tiflis. The largest town is Tiflis, the capital of Georgia, with 370,000 people. Baku, in Azerbaijan, the centre of the oil industry, has 250,000 inhabitants, and Yekaterinodar, the capital of Kuban, has over 100,000. Towns with from 50,000 to 100,000 inhabitants are Kutais, Sukhum, and internationalized Batum (the latter a Black Sea port), Vladikavkaz, the capital of Terek, and Novorossiisk, the port of Kuban. No estimate of the total trade of the region can be given, but it was probably about £5 to £6 a head in the pre-war years, and is certainly susceptible of great increase. The exports exceed the imports, since much foreign capital is invested in the country.

### Position, Climate and General Physical Conditions.

—Caucasia lies between latitudes  $39^{\circ}$  N. and  $46\frac{1}{2}^{\circ}$  N.—i.e. in the latitudes of the mainland of Italy, and between the Black and Caspian Seas. The essential feature of the region is the lofty ridge of the Caucasus Mountains, running from north-west to south-west, and including peaks higher than those of the Alps. Northwards the Kuban and Terek Republics stretch from the mountain crest out across the Russian Plain, while to the



FIG. 40.—CAUCASIA.

south a deep trough-like valley separates the Caucasus from the Armenian Highlands. Rising in the latter, the Kur river turns abruptly south-eastwards and flows through eastern Georgia, past Tiflis, down to the Caspian Sea. Rising in the Caucasus, and turning abruptly north-westwards, the Rion flows down to the Black Sea at Poti. Thus the whole area can be divided up into four widely differing physical units—the mountain chain with its foot-hills, the level plains to the north, the Rion valley facing west, and the Kur valley facing east. The rain-bearing winds, coming from the Black Sea, bring plentiful rains in winter and early summer to the Rion and Upper Kur valleys (i.e. to Georgia), which are, moreover, sheltered from the cold north winds, and hence this is an exceptionally rich and well-



## Caucasia.

favoured region, for the low latitude ensures a hot summer also. Consequently there is a luxuriant evergreen vegetation. The lower Kur valley (i.e. Azerbaijan), though hot in summer, is exposed to cold easterly winds in winter, and has but little rain, so that it is steppe-like in character. The Caucasus Mountains, owing to their elevation, are free from great heat, and have plentiful rains in summer, with heavy snow in winter, although the eastern end of the range is drier than the western. These mountains are in places heavily forested, the foot-hills bearing walnut, box and Caucasus palm, mixed with oak, beech and elm, while at higher altitudes the three last-named trees predominate, and in their turn are superseded at still greater elevations by pine woods and shrubs such as are found in the Alps. The northern plains (Kuban and Terek) have a brief cold season when the rivers are frozen, and a long dry summer, when it is very hot. The scanty rains come in spring, and are greater towards the west than towards the east, and towards the mountains than towards the lowest ground. Hence the natural vegetation is steppe, which degenerates near the Caspian Sea into a saline semi-desert, with reed swamps. Much of the poorer country is in the occupation of pastoral nomads and appears unsuited to cultivation.

**Human and Economic Conditions.**—The cultivation of cereals, particularly winter **wheat** and **barley**, is the most important occupation in Kuban and the western Terek. These crops also thrive in the dry Kur valley, east of Tiflis, while the barley is grown on the mountain slopes up to an elevation of 8,000 ft. **Maize**, which demands greater moisture, is the leading cereal of the Rion valley and Black Sea coast, while a hardy millet is grown in the arid eastern section of the Terek. **Oats** are also important on the northern plains, and cereals form the principal money crop and article of export. **Flax** for linseed, and **sunflowers** for their oily seeds, are largely grown on the northern plains, while **cotton** is a crop that has shown great promise in both the Rion and Kur valleys. In the latter large areas might be irrigated, and a very valuable cotton crop secured, provided the industry were organized and cotton remained as profitable as cereals. In 1914 Azerbaijan produced 47 million pounds and Georgia over 18 million pounds of cotton. **Tobacco** is very important on both sides of the western Caucasus, i.e. in southern Kuban and in Georgia. It is sold as high quality Turkish, and the fields behind Sukhum are of special repute. *Tea* plantations have met with success on the Black Sea coast, notably behind Batum, and throughout Trans-Caucasia the hot summers lead to the ready ripening of orchard **fruits**. These include oranges, lemons, peaches, pears, plums, apricots, melons, and olives, and fruit culture is an important source of income to many small farmers, for a ready market for the produce is found in the more northerly parts of Russia. The *vine* is important, and the wine manufactured suffices for the large local consumption. On the northern slopes of the Caucasus fruit and vines are also grown, but they are less important than to the south. The climate is suitable for the mulberry, and there is some *silk* culture, mainly for local consumption.

The extensive forests await the systematic exploitation of their valuable **timber** trees: there is some lumbering in the Upper Rion and Kur valleys, and there are saw-mills at Poti and Tiflis, while boxwood is exported from Lenkoran on the Caspian Sea.

The animal industries are most important on the plains to the north,

## Caucasia.

i.e. in Kuban and Terek, since there is much natural (steppe) pasture, and the hay and grain crops are large. Fine-woolled **sheep** are the most numerous, followed by *cattle*, *horses* and *pigs*: the nomad Mongols live entirely on the produce of their flocks and herds, which hence yield little for export, but from the Russian and other farms there is a supply of hides, tallow, wool, hair and bristles for abroad. No meat or dairying industry of importance is developed. The mountain pastures are also employed for cattle rearing, especially in central and eastern Georgia, while on the steppes of Azerbaijan there are primitive pastoral peoples, who raise camels as well as sheep, goats, horses and cattle.

The fisheries of the Caspian Sea are important, and there are sturgeon in the River Kur, giving rise to a valuable **caviare** industry.

The mineral wealth of Caucasia consists chiefly of mineral **oil**. The most productive field is that of Baku and district (the Apsheron Peninsula) in Azerbaijan: here the output was 48½ million barrels in 1917, and as the plant escaped damage during the Revolution of 1918, the output should be maintained. Cheleken Island, which produced heavily in 1912, has since declined, as have, indeed, many of the "old Baku" fields. Surachani, one of the "new Baku" districts, yields a supply of natural gas, which is employed to generate electricity on several fields. The Grozny oil-field, situated to the north of the Caucasus, in the Terek Republic, is second in importance, producing 11 to 12 million barrels. The Maikop fields, in Kuban Republic, have proved disappointing, and the output is very small. The total for these South Russian fields for 1917—some 60 million barrels—falls short of the present Mexican output, and the latter country now takes the second place, Caucasia the third. Yet much promising ground in Kuban and Terek remains to be exploited, and there is certainly oil in the Tiflis locality of Georgia. Much British capital is invested in these various fields. The Baku oil is either sent by water across the Caspian Sea to the Volga (in summer only) and to Persia, or by rail to Batum or Poti on the Black Sea, or by pipe line to Batum. The Grozny oil is piped to Petrovsk, a Caspian port, or sent by rail from Grozny station. There are large refineries at and near Baku and at Grozny. The Grozny oil is particularly adapted for the manufacture of petrol, while there is a large sale of heavy fuel oil from Baku. The Maikop oil is refined at Ekaterinodar. A considerable revenue from the oil-fields accrues to the State of Azerbaijan.

**Coal** is found in several localities in Georgia, but under 100,000 tons per annum is produced: there seem, however, possibilities of a considerable increase as the demand rises. **Manganese** is the mineral which has been most actively worked, the Chiaturi mines in Georgia yielding a large proportion of the world's supply, although India and Brazil are increasingly serious competitors. Over 1 million tons were produced in 1913, and the export was worth about a million sterling, the shipping ports being Poti and Batum. **Copper** is also of considerable importance, and American, French, and British capital is invested in the mines. The chief deposits are on the borders of the Armenian Highlands, to the south of the Kur and Rion valleys: about one-third of the output is from territory which now forms part of the Azerbaijan Republic, and the remainder comes from Georgia. The 1913 output was nearly 1,000 tons of copper. **Zinc** and **lead** are being successfully exploited on the northern slopes of the Caucasus in the Terek Republic, and generally speaking the mineral prospects of the



## Caucasia.

whole region are very encouraging. Labour of varying grades is obtained without difficulty, and provided the roads and railways are improved, metallurgical industries should prove profitable. Water-power is very abundant, so that there is great scope for electro-metallurgical and chemical enterprises.

The manufactures of Caucasia are of very little importance. Tin containers and wooden cases for the oil export are made on a large scale at Baku. Silk and carpets are woven, as in Persia, and leather-work is a fairly extensive industry, owing to the abundance of hides, and the fact that the saddle-horse is the usual means of travel. Kuban and Terek, like the Russian steppe provinces in general, have flour-mills, oil-seed crushing mills, breweries and distilleries, while agricultural implements and cement are made at Novorossiisk. All such industries, however, are merely of local importance.

**Trade Relations.**—Broadly speaking, Caucasia normally imported goods from Russia, while exporting largely abroad. From Baku a railway runs through Derbent, Petrovsk, Grozny and Vladikavkaz in the Terek Republic, and thence north-westward through the Kuban Republic to Rostov in the Don Republic, whence all parts of Russia can be reached. A second line from Baku runs up the Kur valley, through Tiflis and Kutais to Poti and Batum. From Tiflis a railway runs into Armenia and Persia, but the projected transcaucasian railway from Tiflis across the Terek Pass is unlikely to materialise. Novorossiisk is the terminus of a line from the Volga through Kuban, which passes Ekaterinodar, and there are numbers of branch lines, e.g. that linking the Maikop oil-fields with the port of Tuapse. The latter is to be the terminus of the Black Sea coast railway running to the Baku-Poti line, and this will open up a very fertile district. Many projects were maturing before the social upheaval, especially in Georgia, which has a very progressive minority among the population. The grain shipped from Novorossiisk goes largely to Rotterdam for distribution to Germany and elsewhere: Germany was formerly also the chief purchaser of manganese: most of the oil goes into Russia, but large consignments come also to Great Britain, France and Germany: oil-seeds and cake go to Germany, and wool to Germany and Great Britain: tobacco goes to Germany and Egypt, the latter country taking also some oil. Fruits and metals, raw cotton and tea go into central Russia, and Russia supplied the bulk of the sugar and textiles required. The U.S.A., Germany and Great Britain compete to supply the iron and steel goods needed—including tin-plate, galvanised iron, machinery and plant (for the oil-fields and mines), agricultural machinery and tools, domestic hardware and miscellaneous wares such as haberdashery and apparel, earthenware, glassware, enamel-ware, stationery, fancy goods, bicycles and motor-cars.

There is an active transit trade with Persia and Turkestan via the Caspian Sea.

**General Information.**—The unit of currency is the rouble, and Russian weights and measures (including the *pood* of 36 lbs.) are employed. The leading banking establishments are the Russian Bank for Foreign Trade and the Russian Commercial and Industrial Bank. The Georgian language has been officially adopted in Georgia, but Russian, Armenian and Tatar languages are commonly spoken.

There is a British High Commissioner at Tiflis, and a British Consul at Batum, which has been declared an international port.



## CAYMAN ISLANDS

See **Jamaica**, p. 114.

## CELEBES

See **Dutch East Indies**, p. 189.

## CENTRAL PROVINCES

See **India**, p. 280.

## CEYLON

**Area and Population.**—The British Colony of Ceylon (administered by a Governor-General) lies off the south-east extremity of India, in the Indian Ocean, and has an area of nearly 25,000 square miles, or rather more than a fifth that of the United Kingdom. The population is 4·6 millions, i.e. rather less than that of Scotland. The most important elements are the native Sinhalese, numbering about 3 millions, and the Tamils—immigrants from Southern India—numbering 1·4 millions. The latter supply the bulk of the coolie labour on the plantations and in the cities. There are about 8,000 Europeans.

The chief seaport and entrepôt, Colombo, has a population of 200,000; Jaffna and Gallé, at the northern and southern extremities of the island, have each about 40,000; Kandy, the centre for the interior upland plantations, has about 30,000.

The total foreign trade in 1917 was approximately £33 millions, of which exports represented over 60 per cent. This gives a per capita trade of £6 6s., approximately that of Japan, and far in excess of that of India. The bulk of the exports are of valuable plantation products, grown under European direction by imported labour, whereas in India the bulk of the exports comprise the surplus produce grown on the small holdings of an independent peasantry. A serious drop of £6 millions in the



FIG. 41.—CEYLON.

## Ceylon.

total of exports in 1918 was due to falling prices and uncertain markets, but there was a strong recovery in 1919, when the total trade was £60 millions.

**Position and Climate.**—Ceylon lies between latitudes 6° N and, 10° N., and is surrounded by the uniformly warm waters of the Indian Ocean. Hence the climate is always hot, but is prevented by the strong sea breezes from becoming unhealthy or enervating. The alternating currents of the south-west and north-east monsoons sweep across the island, the former from April to June, the latter from September to November, both bringing abundant rains. Even at the change of the monsoon showers are frequent, so that continued heat and moisture foster plant growth throughout the year. The driest areas are in the north-west and south-east of the island, since these do not face either wind. In the interior the heat is greatly tempered by the elevation of the land, Kandy, for example, being about 5° cooler than Colombo.

**General Physical Conditions.**—Ceylon is a mountainous island, rising steeply from the south, and more gently from the north to culminating heights of rather over 8,000 feet. Small rivers radiate from the central mass, cutting deep ravines in the hillsides. The climate promotes a luxuriant growth of dense forest, the trees, including coco-nut and many other palms, teak, bamboos and bananas, often interlaced with creepers.

In the drier areas savannah or elephant grass is abundant.

Owing to the configuration and climate, water-power is abundant, and hydro-electric schemes are under consideration.

**Human and Economic Conditions.**—Nearly one-fifth of the total area of Ceylon is cultivated, there being approximately a million acres under **coco-nuts** alone, which yielded produce for export averaging over £4 millions in 1917, 1918 and 1919. Of these products copra and coco-nut oil have the highest value, the latter taking the lead (£1 million) in 1918, while desiccated coconuts and coir are also prepared, and some fresh fruit is shipped.

On the flat coastal plain, especially in the south-west and north-east, **rice** is grown by the native farmers, since irrigation is easy. The lower hill slopes are terraced and flooded for the same purpose, the paddy fields covering altogether nearly  $\frac{3}{4}$  million acres. The crop is, however, insufficient, and large quantities are imported for the Tamils, who consider the Sinhalese rice inferior to the Indian.

Next in acreage to the rice fields are the **tea** plantations, which until the era of plantation rubber held the foremost place among Ceylon produce. The climate and configuration of Ceylon are ideal for tea, leaf growth being continuous through the year owing to the uniform heat and moisture. The plantations cover nearly  $\frac{1}{2}$  million acres, and the Tamil coolies on the plantations number half a million. This labour requirement of one person per acre limits the cultivation of tea to populous areas, although there are many regions with a suitable climate, e.g. the south-eastern United States. The average yield on good plantations is 400–500 lb. an acre, and the shrub can be planted up to an elevation of 7,000 ft. The 1919 export was 208 million lbs., valued at £10 millions.

Ceylon was the first country to make a success of plantation-grown, as

**Ceylon.**

opposed to wild, hevea **rubber**, and the plantations now cover  $\frac{1}{4}$  million acres, yielding 71 million lb. for export in 1917, although falling prices reduced the figure to 47 million lb. in 1918. The value of the 1917 export was £8 $\frac{3}{4}$  millions, whereas that of Brazilian rubber in the same year was only £7 $\frac{1}{2}$  millions, although the quantity exported from Brazil was by 4 million lb. the greater of the two. In 1918 the world's production increased by 13 per cent., but the consumption decreased by 8 per cent., hence the low prices which caused Ceylon stocks to be held over, with the result that 106 million lb. were sold in 1919 when the market recovered. The following years, however, saw a renewed slump in rubber.

Productions of secondary importance (export under £300,000) are the *areca nut* (from a species of palm), *cacao*, and *cinnamon*, all of which showed an increase in 1918 over 1917, although the production of the last two has on the whole shown a marked decrease during the last five years. The 40,000 acres under cinnamon trees in Ceylon supply the world with the essence, the work of gathering the shoots and peeling the bark demanding cheap hand labour.

The cinchona industry, once of importance, declined owing to falling prices, and this trade has fallen into the hands of the Dutch planters of Java.

Although since earliest times Ceylon has been known for its gems—sapphires, rubies and moonstones—the combined value of these is slight, and the trade, centring at Kalutara, is in the hands of the Moors. The only mineral of importance is **plumbago** (graphite), the value of which had risen in 1917 to £1 $\frac{1}{2}$  millions. The competition of Madagascar plumbago, and of cheap graphite from Korea, led to a decline in the industry, and the export in 1919 was worth only £150,000, while by 1921 large stocks had accumulated.

**Trade Relations.**—A large proportion of the tea, rubber and coconut products of Ceylon are shipped to London, but the United States is also a heavy purchaser of the two latter commodities (70 per cent. of the rubber in 1919), and also takes the bulk of the plumbago. Australia, New Zealand and Canada buy a considerable quantity of tea (25 million lb.), and in 1919 25 million lb. went to the United States, where, however, Japanese teas are usually preferred.

In 1917 the United Kingdom filled over three-quarters of the demand for cottons, the remainder coming from India and Japan. In 1919, however, India took the first place, Britain the second, and the share of Japan was trifling. The greatest share of the import trade as a whole is taken by India, which supplies, besides cottons, rice and other native food-stuffs, coal, petroleum, carpets and blankets. Mauritius supplies sugar, also in large demand.

Colombo has a very considerable transit trade, since it is a shipping centre for all the chief points round the Indian Ocean, including East Africa, Aden, the Persian Gulf, India, the Straits Settlements, Dutch Indies and Western Australia. It is also the focus of the Ceylon railway system (714 miles), lines running northwards and southwards to Jaffna and Gallé, and inland to Kandy and the tea plantations. An extension to Trincomalee and Batticaloa on the east coast has been set in hand.

**General Information.**—The banking establishments of Ceylon



## Chile.

are the Mercantile Bank of India, National Bank of India, Bank of Colombo, Bank of Madras, Hong-Kong and Shanghai Banking Corporation, and the Chartered Bank of India, Australia and China. The weights and measures are those of the United Kingdom, and the unit of currency is the silver rupee, equivalent normally to one-fifteenth of the English gold sovereign (1s. 4d.). Ceylon Government notes from 1 to 1,000 rupees are also in circulation. The mails to Colombo take 16 days, via Marseilles.

The Imperial Trade Commissioner for Ceylon resides at Calcutta.

## CHILE

**Area and Population.**—The Republic of Chile, with a total area of nearly 300,000 square miles, and a population of just over 4 millions, shares with Argentina the great advantage of being situated mainly in the temperate zone of South America. With only one-third of the territory of its eastern neighbour, it has nearly half as many people. Two-thirds of Chile is, moreover, but thinly settled, so that in the remaining third there is found a compact group of some 2½ million people. Within this area are situated Santiago, the capital (population 425,000), Valparaiso, the leading seaport (population 200,000), Concepcion, with its out-port Talcahuano, the second seaport (75,000 and 25,000 respectively), and several considerable towns with populations from 20,000 to 50,000. While, moreover, the total volume of the foreign trade (£90 millions in 1918) is less than that of Argentina and of Brazil, the trade *per capita*—£19 in 1917, £22½ in 1918—is very considerably greater than in the latter country. In this connection it may be observed that the Chilean population, like the Argentine, is mainly of European descent, without the strong Indian and negro elements found in Brazil.

**Position and Climate.**—Chile is a long narrow strip of territory, averaging 100 miles in width, confined between the Andes Mountains and the Pacific Ocean. It stretches from well within the Tropics (lat. 18° S.), to a point well within the cool temperate zone (lat. 56° S.). Some conception of its varying climates and resources is gained if we imagine a political unit embracing a strip of Africa and Europe from Cape Verde to the Western Highlands of Scotland: for Chile includes a desert zone, the Atacama Desert, corresponding to the Sahara, a transition zone with light winter

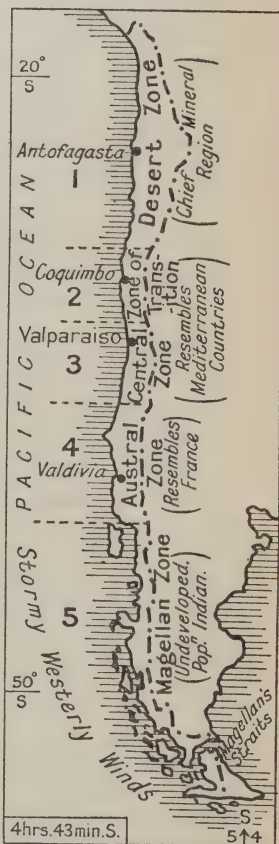


FIG. 42.—CHILE: NATURAL DIVISIONS.

rains, corresponding to Algeria, a central zone still with a summer drought but with more plentiful winter rains, corresponding to Portugal, an austral zone, with rain at all seasons, corresponding to France and England, and the Magellan zone, with a very wet, bleak, stormy climate, corresponding to the Highlands of Scotland.

The most favoured zone, and consequently the best developed and peopled, is that termed Central, with characteristics best described as Mediterranean. It may also be compared with the wealthy California valley of the United States, and it should be noted that the two regions are complementary, since they lie on opposite sides of the equator and their harvests occur in opposite seasons.

**Physical Conditions.**—The configuration of Chile is relatively simple. The steep slopes of the Andes run down to a great longitudinal valley, separated from the sea-board by a range of hills. Short, swift rivers flow from the snow-capped mountains, cutting gaps through the coastal range. These rivers become more numerous towards the south where the rainfall is greater, and so the mountains are very much eroded. The level of the whole of the southern region has, however, been lowered to such an extent that the sea has encroached upon the valleys. The coastal range here appears as a series of hilly islands, separated from the shore by a sound which represents the longitudinal valley further north. This sound stretches with but one break (the Taytao Peninsula) from Puerto Montt to the Strait of Magellan, offering a sheltered sea-way 1,000 miles long. The side valleys cut back into the Andes have also been flooded, and form irregular inlets like the sea-lochs of Scotland. To the north of this "half drowned" region, the coast-line of Chile is singularly straight, and unbroken by any inlet. The absence of natural harbours, such as those of San Francisco and Rio, is a great drawback, for all goods have to be lightered.

In the northern desert region there is no vegetation except along the river sides. Further south the Andean slopes become forested, while thorny algarrobo and small-leaved evergreen trees and shrubs appear on the lowlands. Further south still, when the region of summer drought is passed, temperate forests and meadowland predominate, the trees including oak, cypress and Chile pine, besides immense tracts of evergreen beech.

**Human and Economic Conditions.**—In the Atacama Desert zone lies the most easily exploited of all Chile's natural resources: the great **nitrate** beds. These have formed the basis of national prosperity, for they find an immediate market in Europe, and especially in Great Britain, thus enabling Chile to command in return the manufactured goods of the Old World, and providing means for the steady development of those agricultural resources on which she must rely when the nitrates are exhausted.

The nitrate industry has caused a number of considerable towns to spring up in the desert zone. They include Arica (population 5,000), Iquique (population 48,000) and Antofagasta (population 69,000). All are seaports, and the first and last named are outlets for land-locked Bolivia, with which they are connected by rail. Where the mountain streams provide water for irrigation there is a limited cultivation of vegetables and fodder for local use, but in the main this region must depend upon the south for all the necessities of life. At the settlements on the nitrate beds themselves,

## Chile.

and at the refineries, it is necessary to lay on water from the distant mountains. Short lengths of railway running inland bring the nitrate crystals to the ships, and carry back food, clothing, fuel, building materials and so forth. Recently the region has also been reached by the great south to north Government-owned railroad, which runs along the Central Valley, and offers an alternative route to that by coast-wise vessels, which make Chile so vulnerable in case of war.

The nitrates and the iodine obtained as a bye-product by no means exhaust the possibilities of this region. Irrigation is capable of considerable extension, and the region is eminently suited to *sugar cane* and *cotton* crops, such as are grown under very similar conditions in neighbouring Peru.

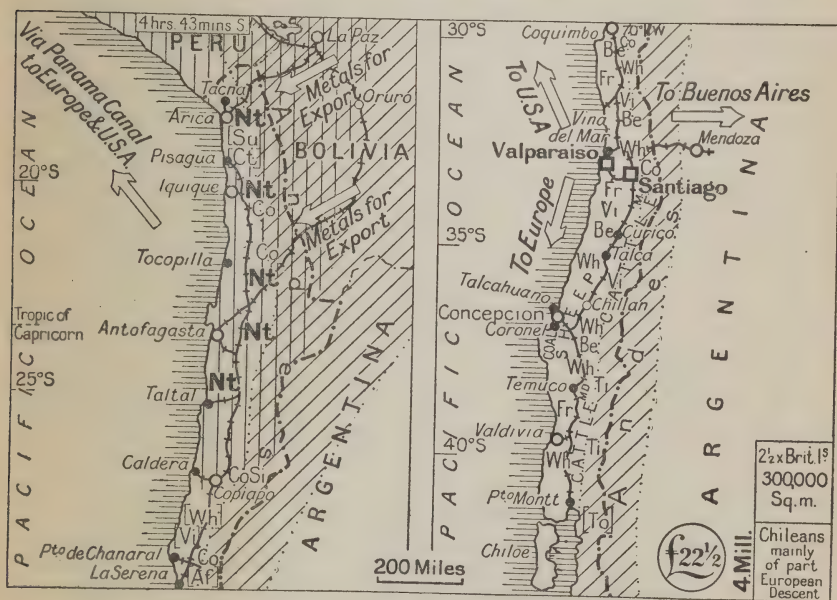


FIG. 43.—CHILE : AGRICULTURE AND MINERALS.

In the transition zone further south, where capital and labour are not diverted to the more profitable mining industries, agriculture, mainly with irrigation, takes on a greater importance. *Wheat, barley, vines, figs, alfalfa*, are among the chief crops, and during the winter and spring rains there is pasturage for stock which can be taken to the Andean meadows in summer. The port of this region is Coquimbo, which stands close to the chief town of La Serena (16,000 inhabitants).

It is, however, in the central zone that agriculture shows the greatest development. Here, too, the irrigated lands are the most valuable,<sup>1</sup> and are being steadily extended, but irrigation is not absolutely necessary for cultivation, the rainfall being sufficient for wheat, barley, alfalfa, vines, olives, apricots, peaches, beans, peas, lentils; in fact, all the valuable food, fruit, and

<sup>1</sup> Between 5 and 6 per cent. of the total cultivated land in Chile is irrigated, and with Government assistance the area is being steadily increased.



**Chile.**

fodder crops associated in Europe with the Mediterranean countries. *Beans* (frigoles) cover a large acreage, for they are a Chilean national dish, and are sold also in other countries of South America. **Wheat**, however, occupies the greatest area, nearly ten times that of any other single crop. The principal wheat districts are found in the south of the central zone, and in the north of the austral zone, where irrigation is not practised.

Of equal importance to wheat growing is the culture of the **wine**. The wines of Chile include not only light claret and white wines similar to those of Italy, but also burgundies and ports which enjoy a high reputation in South America. The chief wine districts are also found in the central zone. The towns in this region either stand in the central valley, e.g., Santiago, Talca (42,000 inhabitants), Chillan (40,000 inhabitants), Curicó (24,000), or on the coast, e.g., Valparaiso, with Viña del Mar, the fashionable watering place a few miles away (population 35,000), and the group, Concepcion, Coronel, Talcahuano farther south.

In the austral zone, where there is no summer drought, the corn crops, vegetables and fruits of France can be grown, *apples* being especially notable, and wheat doing excellently. There is also abundant pasture for *cattle* (including milch cows) and sheep. *Lumbering*, too, takes on considerable importance. Only the northern section is well developed at present, the chief towns being Temuco (34,000 inhabitants), in the valley, Valdivia, the chief seaport (28,000 inhabitants), twelve miles from the coast (goods lightered from Corral), and Puerto Montt, the southern terminus of the great north to south railroad, at the head of the sound which replaces the central valley at this point. At Puerto Montt a freezing and packing establishment has just been built.

The southern part of the austral zone, and the Magallanes Territory, with their great **timber** resources and *fisheries*, are for want of capital and labour at present but little exploited, although there is a scattered population engaged in cattle-rearing and lumbering. In the extreme south, however, the Chilean boundary runs down to the Atlantic coast on either side of Magellan's Strait, so that part of the level land on the eastern side of the mountains is included within it. These plains are clothed with pasture, which, owing to the cool climate, is admirably suited to **sheep**, and here the flocks number 2 millions. The port of this region from which the wool and meat are shipped is Punta Arenas on the Strait.

In addition to nitrates, Chile has very important copper mines scattered through the Andes, from which some 100,000 tons of **copper** is annually produced. Much of the mining is of a very primitive character, the ores being carried up from the mines in baskets on men's backs, and transported on pack animals. There is, however, an up-to-date mine and smelting works (erected with United States capital) at Chaquicamata, served by the Antofagasta railway, and there are smelting works near Santiago. Copiapo, in the longitudinal valley, in the extreme south of the desert zone, depends for its prosperity upon the neighbourhood of copper and silver mines, the ores being exported from Caldera, with which it is connected by rail. An American (U.S.A.) Company is also preparing to develop the Potrerillo Copper Mine on a large scale. Electrical and smelting plant is under erection at Chañaral, a small port to the north of La Serena, connected by rail with this Andean mine.

The third mineral of importance is **coal**, the chief fields being near the

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coast to the south of Concepcion, behind the coaling-port of Coronel. The output is  $1\frac{1}{2}$  million tons. There is also a small field by Magellan's Strait.

The manufactures of Chile are of minor importance. They include flour-mills, tanneries, saw-mills, biscuit and chocolate factories, distilleries, railway workshops, boot and shoe factories, and one iron foundry at Corral.

**Trade Relations.**—The Chilean nitrates form the staple export, followed at a long distance by copper. The agricultural products are in the main consumed locally, but there is a surplus of wheat, hides, wool and mutton for export to Europe, while Chilean wines and beans find a market in South America. In normal times Great Britain is the chief purchaser of Chilean goods, followed by Germany, the United States, France, Belgium and Holland. The war years gave the United States the opportunity to step into the first place, not only as regards exports from Chile, but also as regards imports into that country. The two chief classes of these—textile and iron and steel goods, including machinery—formerly came in greatest value from Great Britain, the other manufacturing countries following in the same order as in the case of Chilean exports. The British export of textiles was fairly maintained, increased prices making up for decreased quantities, but such items as iron and steel goods, hardware, machinery, ships and coal, necessarily almost disappeared from the list.

The post-war slump in nitrates reduced the export trade of 1919–20 by several millions, but prosperity will be restored side by side with the restoration of European agriculture.

As regards the other South American Republics, Chile does the greatest trade with her neighbours, Argentina and Peru: the former sends cattle, yerba maté, and boots and shoes across the Andes, the latter supplies sugar and petroleum. The exports from Chile to both countries are less than the imports, for “high farming” as it is practised in Europe, involving the use of fertilising nitrates, is almost unknown in countries that are agriculturally “new.”

Although much of the trade between Chile, Great Britain and Western Europe will undoubtedly be restored, the opening of the Panama Canal in 1915 brought the United States nearer than the Old World countries to the north and central zones of Chile, whereas formerly the opposite was the case.

About half the total railway mileage belongs to the State, and is of 5 ft. 6 in. gauge; the privately-owned lines are of varying gauge.

**General Information.**—The language spoken in Chile is Spanish, and the people are Roman Catholics. Education has only very recently been made compulsory and quite one-third of the population is illiterate. The official monetary unit is the (uncoined) gold *peso*, of the value of 1s. 6d. Paper money is in actual use, the value of the paper peso fluctuating considerably. The metric system is officially adopted, although the old Spanish weights and measures are also in use. The Anglo-South American and the London and River Plate Banks have branches in the principal cities. There is a British Consul-General at Valparaiso, Consuls at Coquimbo, Antofagasta, Caldera, Coronel and Iquique, and Vice-Consuls at many other towns. A Commercial Secretary is attached to the British Legation.



## CHINA

**Area and Population.**—The Chinese Republic includes the eighteen provinces of China Proper and the three provinces comprised in Manchuria, together with the new dominion of Sinkiang (Chinese Turkestan). Mongolia and Tibet have been granted autonomy under Chinese suzerainty. The eighteen provinces have an area of  $1\frac{1}{2}$  million square miles. Manchuria has an area of 363,700 square miles, that is to say, altogether—apart from the outlying territories—China is rather more than half the size of Canada. Sinkiang, Mongolia and Tibet cover an area of  $2\frac{1}{4}$  million square miles, bringing up the total of what was formerly the Chinese Empire, in round numbers, to 4 million square miles.

The estimates of population made by different authorities vary between very wide limits. Probably there are about 310 million persons in China Proper, 15 millions in Manchuria, and about 2 millions in each of the three outlying territories. The average imports for 1913–17 were £85 millions, the exports £71 millions, giving a total foreign trade of £156 millions or only 9s. 6d. per head of population, or if the people outside China Proper and Manchuria are excluded, 9s. 7d. per head. This is a very small figure, considering the vast agricultural and mineral wealth of the country and its huge labour supply, taking into account also the fact that the Chinese are a civilised and cultured people, and that the middle and upper classes are accustomed to lives of refinement and luxury. Japan, with about one-sixth of the population of China, has a far greater volume of trade. The rapid spread of Western ideas, the settlement of internal disorders, and the completion of the existing big programme of railway construction must be followed by a very rapid economic expansion, of which, however, the Japanese will reap the chief advantage. Apart from their favourable geographical position, and their knowledge of the Chinese market, the Japanese are obtaining a controlling interest in the country by means of Government loans, capital investments, the establishment of credit banks and so on.

The figure of over £400 millions for the total trade in 1919 suggests great expansion, but in addition to the rise in prices, the enormous appreciation of the Chinese silver unit of currency (the tael) contributed to this total. In spite of civil war, famine, the collapse of the exchange, and world-wide trade depression, the figure for 1920 still showed an advance of about 10 per cent. to a total of £442 millions, but the increase was in imports, exports gravely decreasing.

The population of the cities is a matter of estimate only, but those of the first rank are Peking, the capital, commanding the Northern Plains, with 1 million inhabitants; Hankow, with a magnificent central position on the Yangtze River (population,  $1\frac{1}{4}$  millions); Shanghai, with the most central position on the coast, the leading entrepôt (population, 1 million). Canton, the capital and entrepôt of the south, has nearly 1 million inhabitants, while the  $\frac{3}{4}$  million figure is passed by Tientsin, the port of Peking, and the  $\frac{1}{2}$  million by Hangchow and Foochow, seaports of Central China, and Chang-sa, a river-port in the Yangtze basin. Besides these, there are half a dozen other cities with over 100,000 people, among them being Mukden, the chief urban centre of Manchuria. All these large towns are treaty ports, i.e. are open to foreign trade, and hence they are the points





up posts in the new Chinese Universities. A phonetic script has been under discussion to replace the ancient ideographic writing.

Peking and Canton are as far apart as New York and Cuba—some 1,200 miles—while Shanghai is roughly half way between them, a fact to be borne in mind when agencies are under consideration.

**Position and Climate.**—If Manchuria be included, China stretches from 53° N.—the latitude of Nottingham in England, and of Edmonton in Saskatchewan—to 18° N., i.e. to a point several degrees within the tropics. The climate is, however, more uniform than might be expected, owing to the dominance of the whole country by the monsoon. The south-eastern monsoon blows in summer from the sea and brings abundant rains. The region that benefits by these rains is limited inland by the edge of the central Asian plateau, and consequently the elevated interior, including Tibet and Mongolia, is very dry, as are also the remote parts of the western provinces of Kan-su and Szechwan. The rainfall diminishes also from the tropical downpour of the south to the light summer rains of Manchuria, where the precipitation is comparable to that in the prairie provinces of North America. The summers are exceedingly hot as far north as Peking (latitude 40°), while beyond that latitude they are more moderate. The winter is particularly cold in Manchuria and North China, owing to the strong north-westerly land wind from Siberia. In Central China a short winter, far from severe, is the rule, while in the southern sub-tropical and tropical region the winter months are warm and pleasant. Both in South and Central China there is some rainfall during the winter months, and this fact, combined with the absence of severe weather, makes agriculture possible all the year round. The north is a region of summer and autumn cropping only, but the fact that throughout China the season of greatest heat is also the season of greatest rainfall makes the country very highly productive. As in all monsoon countries, the rain may fail, and this occurs especially in the North, with famine, such as devastated five provinces in 1921, as a consequence.

**General Physical Conditions.**—China is on the whole a mountainous country, especially in the west and south. Its most important topographical feature is the series of great rivers which cross it from west to east, and thus open highways between the coast and the interior. The fertile valleys of these rivers and their tributaries are the chief centres of dense population, and as they approach the sea these valleys open out into wide plains.

In the north of China Proper, the Gulf of Chilhi penetrates deeply into the land, flooding the low ground behind the Shantung and Liaotung peninsulas, so that here the plain is narrow, and the traffic lines converge. The principal river is the Pei-ho, running by Peking to the Gulf. Still farther north, the Manchurian Plain opens out from the Gulf. This Plain runs from north-east to south-west, and is shut off from the ocean by a series of mountain ranges. The southern part drains to the Gulf by the Liao-ho, and it is this area that has been colonised and settled most closely by the Chinese. The northern part drains to the forested Amur basin, by the Sungari, a tributary of the Amur. In this direction the population is much more scanty. The Manchurian Plain forms a natural corridor between Eastern Siberia and China.



## China.

The Chilhi Gulf receives, in addition to the Liao-ho and Pei-ho, a third river far greater than either. This is the Hwang-ho, which brings down such an enormous load of silt (swept from the loose "loess" soil of its upper basin) that it has gradually raised its bed above the level of the plain (here much broader) and has to be confined between dykes. In time of high-water (summer) its level is 15-20 ft. above the countryside, and consequently there have been repeated disastrous floods, involving great loss of life and destruction of crops. Previous to 1854, the river flowed south-eastwards across the plain, and not north-eastwards as at present. From the inner margin of the plain, a section of the Hwang-ho valley, prolonged by the valley of its tributary Wei-ho, affords a very important east to west routeway into the interior of Asia. The lower river is naturally not suited to navigation, nor is any great city located on its shifting banks.

To the south of the Hwang-ho flows the Yangtse-kiang, which, since it drains a much wetter region than the former river, is joined by a series of great navigable tributaries, penetrating the country in all directions. There are a number of large lakes in the Yangtse basin, e.g. the Tung-ting and Poyang, which fulfil the useful function of receiving the surplus river waters in summer, and thus prevent excessive flooding. The consequence is that a series of great cities have arisen on the banks of the middle and lower Yangtse and of its chief tributaries. The Tsin-ling Mountains separate the higher reaches of the Hwang-ho and Yangtse-kiang systems, but lower down they flow over the same great plain, so that the establishment of communications between North and Central China has never been difficult. The ancient Imperial Grand Canal and the modern railways bear witness to this.

South China has, however, always been more isolated, and this has led to differences of language, custom, and outlook which are reflected in the political conflicts between north and south. The chief southern river is the Si-kiang, which, like those farther north, opens a way westwards into the heart of the country. It is, however, separated from the Yangtse-kiang by a belt of mountainous country which runs right down to the sea. The general trend of the mountain chains is parallel to the coast, which here runs from north-east to south-west. Between the outermost chain and the Formosa Strait lies the fertile, densely peopled, yet hilly province of Fu-kien, remarkable for its very deeply indented shore line.

If the Si-kiang is followed inland to Yun-nan, another series of mountain chains is encountered. They are very lofty, and run from north to south, separating China from Burma and India, and forming a most formidable barrier to intercommunication.

Except upon the higher mountain chains of Manchuria and of the south and west, China has been almost denuded of the natural forest growth which must once have covered it almost entirely. The characteristic trees of the north and of the higher elevations are the fir, larch, pine, oak, elm, poplar and willow of temperate Europe. In the valleys of Central China there are more evergreens, such as magnolias and camellias, while in the tropical south there are palm trees, and the exceedingly valuable bamboos. The chain of mountains behind Fukien is drained by a number of rivers which unite to form the Min-kiang. *Timber* is floated down to Foochow, at the mouth of the river and exported thence, but the supply must soon be exhausted unless scientific afforestation is practised. The Manchurian timber comes down the Yalu River to Antung.



The somewhat arid north-west of China has naturally a steppe-like vegetation, with few trees, and the Manchurian Plain has likewise always been only lightly timbered, in this respect again resembling the American prairie.

**Human and Economic Conditions.**—China is essentially an agricultural country, and the bulk of the population are farmers, owning a tiny freehold which is handed down from father to son. The very small acreage of the farm both necessitates and makes possible intensive cultivation. (It should be noted, however, that it precludes the use of large machinery, and the demand is rather for hand implements.) The rainfall is supplemented by irrigation, there is very thorough manuring, and a strict rotation of crops is followed, so that in the north two crops, and in the south three, are reaped during the year from one field. Except on land incapable of tillage there is little pasturage for stock, and only the necessary draught animals are kept—buffaloes, oxen and donkeys—these being stall-fed. Apart from these, the most numerous animals are *pigs* and *poultry*, which feed on the waste from household and farm, and supply what little meat enters into the Chinese diet. Recently the trade in pigs' bristles, and in dried and liquid eggs and albumen has reached important dimensions. The scarcity of meat leads to a large consumption of fish, which are bred and fished in ponds and rivers as well as taken from the sea.

**Rice** is the staple cereal crop of China south of the Hwang-ho, and the provinces of the lower Yangtse, with large areas capable of irrigation, grow sufficient to provide a surplus for export to Peking and the north generally. But the country as a whole does not always supply its wants, and there is a varying import of rice—mainly from Indo-China—which in 1917 was valued at £6 millions. On poorer lands millet takes the place of rice, while in the north of China Proper, and in Manchuria **wheat** is the leading cereal and appears as a winter crop further south. The Chinese are gradually colonising not only the Manchurian Plain, but the somewhat similar region of Outer Mongolia. The low rainfall, hot summer, and fine deep soil give these regions conditions somewhat resembling those of Canada, so that China may be looked upon as a potential source of wheat for export, although at present most of the grain is consumed locally. Cattle- and sheep-breeding will also greatly extend in these areas. **Maize** is a subsidiary cereal in the plains round Peking, and in South Manchuria, but the needs of the dense population normally preclude any surplus of bread-stuffs. In 1919 and 1920 for the first time there was a noteworthy cereal export, including some  $\frac{1}{2}$  million tons of wheat, besides wheat flour, worth £14 millions.

The only food material that China sends abroad in important quantities is the **soya-bean** and its products, and this trade is only of recent, yet extraordinarily rapid, growth, reaching a value of £30 millions in 1919. The bean is widely grown all over China, but it is in the north, and especially in Manchuria, that there is the greatest production and the greatest surplus. It is used locally to prepare the universal Chinese sauce "soy," and also as a fertiliser and to fatten pigs. At first the beans were exported in their natural state, but it is increasingly the practice to express the oil in which they are so rich and export it separately, the residue forming bean-cake, also exported, which has a very high

## China.

nutritive value as a cattle-food, and is also largely used in Japan for manure. The chief centres of the bean-pressing and exporting industry are Newchang, Dalny (Dairen) and Antung, the outlets of Manchuria.

The **ground-nut**, which, like the bean, has in recent years been in great demand in Europe for the manufacture of margarine, is another crop widely grown in China. The north is especially prolific, Shantung being the most productive area in this respect, with the result that Tsing-tao, the port at the terminus of the Shantung railway, handles the bulk of the export trade in nuts and oil.

The historic export of China is, of course, **tea**, and although the trade has greatly diminished owing to the competition of Indian, Ceylon and East Indian teas, a recovery is now probable since a Government Bureau has been established to improve the methods of growing, preparation and packing of the leaf, and a part of the export duty has been removed. The best tea grows in South-central and Southern China, particularly on the hill slopes of the provinces to the south of the Yangtse and in the Si-kiang valley. The mild winters, and the absence of any marked season of drought, are essential climate requirements of the shrub, and in addition there must be a fertile, well-drained soil and abundance of hand-labour. Female labour is especially important in this industry. Foochow, the port of the hilly, maritime province of Fukien, has long been noted for its tea-trade.

As far as exports go, it is, however, as a **silk** producer that China holds a really important place in the world's markets. It is responsible for a quarter of the world's supply of 60 million lb., ranking second only to Japan. The climate of the Yangtse and Si-kiang basins is suited to the mulberry tree, and silk-worm rearing is a household industry throughout these densely peopled valleys, the work of the women and children being specially valuable. In the north, where the severe winters do not suit the mulberry, the silk-worms are fed on oak-leaves, this so-called "wild" silk being most abundantly produced in Shantung and Manchuria. The wild silk is found to be the best for aeroplane wings, and the recent discovery of an effective method of bleaching it has allowed it to be dyed and printed in delicate shades, so that its value is greatly enhanced. The woven material is known as Shantung, and is produced chiefly at Chefoo and Tsingtao, the ports of the Shantung peninsula. The introduction of steam filatures for unwinding the cocoons has greatly improved the quality of Chinese silk. These are most numerous in the lower Yangtse region—at Shanghai, Hangchow, Soochow and Chinkiang—at Hankow on the middle Yangtse, round about Canton, and at Chefoo. The lower Yangtse cities are also the chief source of silk piece goods, the chief market for these being Shanghai.

Of greater domestic importance than silk is the **cotton** crop, since both for under and outer garments, as well as for household purposes, cotton materials are in almost universal use among the vast population. The home supply is, however, insufficient, for in 1917 cotton piece goods were imported to the value of £20 millions, besides Indian and Japanese yarn to the values of £6½ and £6 millions respectively. The proportion of Chinese yarn in the factories (as opposed to the home hand-looms) is increasing, and as there are numbers of new mills being built, these will probably absorb the present export of raw cotton (£4 millions), which goes mainly to Japan. Since it is a summer crop only, cotton can be grown as far north as Peking,



and is very important in the Hwang-ho basin. As in the case of silk and rice, however, it is the Yangtse-kiang valley that has the greatest production, and the largest number of cotton mills are found at Shanghai, while there are others at Wuchang (Hankow) and Canton. Recently, however, no less than seven Japanese mills have been established at Tsingtao in Shantung. Here there is abundant cheap labour, local raw material, a climate sufficiently temperate to allow of continuous work, and ideal moisture conditions owing to the seaboard location.

The Japanese manufacturers are pursuing in China the policy of the United States manufacturers in Canada, that is to say, they are setting up branch factories so as to take advantage of conditions which are more favourable than in their own country.

*Sugar*, which is essentially a crop of well-watered tropical or sub-tropical regions, is cultivated in Southern China, but no longer in sufficient quantities to supply the needs of the country. Consequently there is a large import from the East Indies and Japan, which has increased owing to the imperfect methods of the native refineries, which cause the higher priced foreign sugar to be preferred.

**Wood oil** (tung oil), from the nut of a tree growing in Central and South China, is of importance, and is shipped down the Yangtse and Si-kiang waterways. A British refinery is established at Hankow.

Among subsidiary crops grown for local use may be mentioned hemp, indigo, tobacco, oranges, and orchard fruits generally. A large area has recently been set free which was formerly devoted to the opium poppy, and is now available for crops of greater value to the community at large. It is probable, too, that by the introduction of chemical fertilisers, the use of more efficient agricultural implements, the more careful selection of seed, and similar changes which must follow the spread of Western knowledge, the agricultural output of China could be very greatly increased. *China grass*, which grows wild in the central provinces, can be woven into a soft, lustrous fabric, and the invention of a successful decorticator would possibly revolutionise the whole textile industry.

*Drugs* are a further example of the minor articles in which China does a considerable trade. They include aniseed, liquorice, rhubarb and musk—the two latter being collected in Tibet and in the provinces on its borders. Musk is obtained, of course, from the wild musk deer, a tiny animal almost confined to those regions. *Camphor* grows in the south-eastern provinces, and the output has recently increased, which suggests that the industry may be re-established on a scientific basis as has been done in Formosa.

The *pastoral* industries of China are, for reasons already stated, of no great importance. There are, however, **cattle** raised in the flood region of the Hwang-ho, in western Shantung, and at Tsinan there is a considerable market. The animals are sent thence by rail or road to Tsingtao or Shanghai, at both of which ports there are now freezing establishments. In the dry, cool, provinces of the north-west, and both on and within the borders of Mongolia, there is natural pasturage for *sheep*, and this region is the chief source of **wool**, of which there is some export.

The *mineral* wealth of China possibly exceeds the agricultural wealth, but the output is by no means great. The backward state of mining reflects the very poor transport facilities, for not only are railways lacking, but even roads, so that traffic is by wheelbarrows, by small and cumbersome



## China.

carts, or, where there is water deep enough, by junks, sampans and other craft. In the Yangtse and Si-kiang basins, the volume of native water traffic is enormous. The **coal** resources are very great indeed, and the mines are well distributed over the country, but this is a mineral which cannot bear excessive transport charges. The most famous field is the anthracite coal-field of Shansi, but this is very inadequately worked by Chinese companies. The most progressive workings are at the Fushun collieries in South Manchuria, near Mukden, owned by the South Manchurian (Japanese) Railway Company, and the Kaiping collieries, under the Kailan Mining Administration, which is Sino-British. Both these mines have good railway facilities, and easy access to the ports of Dalny and Chinwangtao respectively, and both carry on a profitable brick and tile industry in conjunction with mining. The Japanese concern has also a large coking plant, and a gas plant yielding as a by-product sulphate of ammonia, which goes to Japan. The mines of Shantung (formerly German-owned) are also favourably placed with regard to the railway, and have a considerable output, and in Hu-peh Province, to the south of the Yangtse, a mine is worked to supply the Hankow industrial concerns. Taking a very liberal estimate, the whole output of China is not more than 18 million tons, but this is twice what was produced in 1914. The Chinese ignorance of machinery is a great hindrance to industrial enterprises; machines are thrown out of use owing to ignorant handling, to inability to effect small repairs, or to the lack of spare parts, and the consequent loss and disappointment act as a deterrent to other purchasers.

In **iron** ore China is likewise rich, the greatest output being from the Tayeh iron mines in Hu-peh, connected by light railway with the Yangtse below Hankow. Part of the output of 700,000 tons goes to the Hankow ironworks and part to Japan. There are also high-grade ores being worked in Southern Manchuria, where the Japanese have established the Anshan Ironworks.

The principal **copper** works are near Langchow, in the remote western province of Kansu, where there are Government smelting works, equipped with British and American machinery, under the control of British, Belgian and Spanish engineers. The mountainous province of Yunnan is also rich in copper, which is, however, but little worked. The chief mineral output in this province is of **tin**, found in the Mengtsh district, through which the French railway of Tonking (Indo-China) runs up to Yun-nan-fu. This ore

FIG. 45.—CHINA :  
PROVINCES AND  
MINERALS.



is taken to the coast by rail and then to Hong-Kong for smelting. The yield is about 8,000 tons of tin annually. China is the chief source of the world's supply of **antimony**, the principal mine being in the province of Hu-nan. There are antimony smelting works at Hankow and at Changsha, on the railway from Hankow which will eventually run to Canton. Zinc-ore is also reported. There are undeveloped **oil**-fields in Shansi and Szechwan.

The *manufacturing* enterprises of China are mainly concerned with preparing the agricultural and mineral products for the market. They include flour and rice mills, egg and albumen factories, oil-crushing mills, smelting works, brick, tile and cement works. Apart from these the most important and thoroughly established industry is that of *textiles*, cotton yarn and goods ranking first, silk yarn and goods second as regards output, though not as regards export. The *iron* and *steel* industry is still in its infancy, although the large ironworks of Hankow, and the newer enterprise in Southern Manchuria indicate possibilities of development if capital and organising ability are forthcoming. The Hankow works employ forty foreign engineers, and 8,000 Chinese labourers, and turn out pig-iron, steel rails, steel plates and nails, although in quantities insufficient for Chinese requirements. Recent years have seen a *shipbuilding* industry established at Shanghai, and at various river ports motor-boats (with imported engines) are built for use on the numerous waterways.

Among native manufactures the most famous is the *porcelain* industry. The principal kaolin deposits are in the mountainous south-eastern province, Kiang-si (with King-te-chen as centre), Fukien and Kwantung. The two latter provinces are also the most famed for lacquer-ware, objets d'art, fireworks, matting and palm-leaf fans. Carpets and rugs are chiefly sold in Tientsin, since sheep are bred in the north-west, and Mongolian produce reaches this port via the caravan terminus at Kalgan. The straw-plait industry is also a northern one, the long-stemmed wheat growing on the Hwang-ho plain. The market is at Tsinan, and the export (in Japanese hands) from Tsingtao. Grass-cloth is woven and finds a market in Korea.

**Trade Relations.**—Japan takes the largest share (about 40 per cent.) of the total trade of China, the imports and exports being approximately equal. Cotton piece goods and yarn are the most important items of Japanese origin, while matches, paper, and refined sugar, together with miscellaneous articles for domestic use and fancy goods, make up a considerable total. As regards exports, Japan does not require silk or tea, but takes a very large proportion of the bean cake and vegetable oils, besides hides and skins, drugs and metals. Great Britain has only 30 per cent. of the Chinese trade, since both Japan and America compete in supplying the chief British staple, namely cottons. There is, however, a growing demand for woollens in Northern China, where the winters are severe, and these are mainly sent from Britain, for Japan has no great woollen industry, and the United States have only lately begun to export. A proportion of the iron goods and machinery required by China also come from Britain, but considering the size of the country, the total import, valued at £6 millions, is very small. Much of the machinery in use is very old and out-of-date, and hence a sudden expansion of the demand is to be anticipated. British imports from China during the War were considerably in excess of exports, tea, silk yarn and silk goods, and egg products ranking first, followed by rela-



## China.

tively small consignments of bristles, wool and hides. In 1919 and 1920 China overbought British textiles.

The United States has nearly 20 per cent. of Chinese trade, but the imports from China are markedly in excess of the exports, since there is no demand for such great American staples as grain and meat, and little for iron and steel goods. Petroleum, which neither Great Britain nor Japan can supply, was the first product to give the States a footing in Chinese trade, and the export is valued at £5 millions, although the Dutch East Indies are serious competitors, sending oil to the value of £2 millions. The cotton piece goods trade is also important, and with the disappearance of the opium traffic the Chinese have consumed more cigarettes, which the States can furnish. American boots, shoes and rubbers also find a market. In return China sends to America a large proportion of her silk and silk goods, besides vegetable oils (including wood oil) and a little tea. According to United States returns, the total value of the trade with China, either direct or through Hong Kong was over 400 million dollars in 1919-20, as against 74 million dollars in 1912-13. For tea China finds her principal market in Russia and Siberia, while Mongolia and Tibet make a considerable demand for brick tea. Chinese meat and other animal products go to the densely peopled parts of the Indies, e.g. Java and the Philippines, in return for such commodities as sugar and tea (for blending). India supplies cotton yarn (£6½ millions) and jute bags. There is an increase in the number of electrical installations in the leading cities, many of the Shanghai textile mills, for example, purchasing power from the Municipality. The import of electrical apparatus and fittings in 1920 was valued at £2 million, and here the United States, Great Britain and Japan are competitors, the first and last named countries at present holding the market, although many Dutch lamps are used.

The comprehensive railway programme of the Chinese Government has been held up by the civil war, and to a certain extent by the opposition of the more backward and ignorant peasantry of the mountain districts. The trunk-route from Peking via Hankow to Canton is urgently needed, but is only complete to Chuchow, 30 miles south of Chang-sa, and for 140 miles from Canton northwards to Shinchow. A branch line should be carried up the Hwang-ho and Wei-ho valleys to Langchow, whence caravans start for Central Asia. For this line an American Company has obtained a concession. Even more important, however, is the line from Hankow to Sze-chwan, on which construction has begun. Sze-chwan is a densely peopled, fertile province on the upper Yangtse-kiang, growing tea, cotton, rice, wheat, silk, bristles, drugs, wood oil and oil seeds in abundance. Its metropolis is Chung-king, a river-port with nearly half a million inhabitants, but below this port the navigation of the Yangtse is interrupted and made dangerous by rapids and shallows, especially at the famous Ichang gorge, so that the province is almost isolated. Several foreign companies have lately put steamers on the river which surmount the obstacles, except during the winter months, when the water is so low that the rocky rapids are impassable. The need for a railway is, however, great, although the mountain barrier which encloses the province makes construction difficult. A third route will be constructed up the Si-kiang valley from Canton to Yunnan-fu, and must eventually be carried over the mountains to link with the Burmese system, which already reaches the frontier. In this



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way the tremendous detour of over 6,000 miles from India to China, via Singapore, will be avoided.

The Manchurian railway system, under Japanese control, is already fairly complete. It is linked with the trunk line to Peking, and also with the Trans-Siberian railroad, which runs to Vladivostok via Harbin in northern Manchuria. A branch line from Mukden also joins the Korean railways, and there is thus a quick route via Seoul and Fusan to Japan. Harbin and Mukden are consequently considerable entrepôts for Siberian, North Manchurian and Mongolian produce, including furs and skins, wool and hides, besides farm produce. The Grand Canal is to be dredged and made navigable by an American firm under contract with the Government.

Of the ports of China, two only have first-class natural harbours. They are Dalny (Dairen), on the territory leased to Japan, and Tsingtao, on the territory formerly leased to Germany. Both have deep water, allowing the largest ocean vessels to lie at the wharf, and both have up-to-date facilities for dealing with freight. Of the other ports, Tientsin is forty miles up a shallow, winding and swift river, the Pei-ho, which is, moreover, closed by ice during December, January and February. A bar at the river mouth (at Taku) has a maximum depth of only 14 ft. Consequently goods for North China must be transhipped at Shanghai or Kobe (Japan), and sometimes subsequently lightered from the smaller vessels.

Shanghai, on the Whangpoo, has the approach barred by sandbanks, over which the maximum depth is 30 ft., so that the largest ocean vessels cannot approach it, and mail steamers discharge from lighters at Woosung, 14 miles away. Although this port has the most productive hinterland, to which it is linked by water and rail, it is considered that unless improvements are affected, Tsingtao will prove a serious competitor, and various plans for providing a 40 ft. channel are under consideration.

**General Information.**—The unit of currency for Customs purposes in China is the Haikwan *tael*, representing a fixed weight (581·47 grains) of silver, and therefore of fluctuating exchange value: worth only 2s. 8d. in 1908, it had risen to 5s. 3d. in 1918 and to 6s. 4d. in 1919, but the dollar (2s.), also of fluctuating value, is in wide circulation, and the minting by the Government of silver dollars and subsidiary coins has begun. A gold currency scheme has been formulated, but has not so far been carried into effect. The *picul* (unit of weight) is fixed by treaty as 133½ lb. avoirdupois, and the *ch'ih* (unit of length) as 14<sup>1</sup>/<sub>10</sub> English inches. A picul equals 100 *catties* or 1,600 taels. These equivalents are in common use at the treaty ports, but over the country there is wide variation. The last few years has seen the establishment of five Chinese National Banks—the Bank of China, the National Bank of China, the Bank of Communications, the Minkuo Industrial Bank, and the Exchange Bank of China (with Sino-Japanese capital). There are, in addition, the large foreign banks at the treaty ports, of which three are British: the Chartered Bank of India, Australia and China (head office in London); the Hong-Kong and Shanghai Banking Corporation (head office in Hong-Kong); the Mercantile Bank of India, Ltd. (head office in London). The mails, carried by P. & O. steamers, take 26–30 days to reach China; the Messageries Maritimes, from Marseilles, also carry mails, as do three Japanese steamship lines sailing between China and both Europe and America. From Vancouver by C.P.R. steamer the time taken is 19 days,

## **Chosen (Korea).**

and from San Francisco, by the American-Pacific Mail Steamship Co., 30 days. The time from London to Peking by the Trans-Siberian and Manchurian railroads was only 12-14 days, but this service has been disorganised owing to the political situation in Russia.

The three official religions of China are Confucianism, Taoism and Buddhism, but there are over 5 million Mohammedans, and 2½ million Christians.

A powerful wireless station is to be erected at Langchow to maintain communication with Urumtschi and Kashgar in Sin-Kiang, formerly Chinese Turkestan. The internal telegraph system of China is fairly adequate.

British Consul-Generals reside at Shanghai, Canton, Hankow, Tientsin, Mukden, Cheng-tu (Szechwan), and Yunnan-fu. There are also Consular representatives in all the open ports. A British Commercial Counsellor is stationed at Shanghai, and a Commercial Secretary is attached to the Legation at Peking.

## **CHINA, FRENCH**

See **French China**, p. 224.

## **CHINA, FRENCH-INDO**

See **French Indo-China**, p. 228.

## **CHINA, PORTUGUESE**

See **Macao**, p. 325.

## **CHINESE TURKESTAN**

See **Sin-Kiang**, p. 429.

## **CHOSEN (KOREA)**

**Area and Population.**—Chosen is (since 1910) a part of the Japanese Empire, administered by a Governor-General. With an area of about 84,000 square miles (nearly as large as England, Scotland and Wales), it has a population of 17 millions, including a large number of immigrant Chinese and Japanese, about 400 Europeans and 600 Americans. The foreign trade has risen during the last few years from an average of £10 millions to over £50 millions (1919), i.e. nearly £3 per head. The imports are considerably in excess of the exports, as a great number of improvements are being made and new industries started under the direction and with the capital of Japan. Seoul, the capital, has 300,000 inhabitants, and Ping-Yang, an inland "open port," has 170,000.

**Chosen (Korea).****Position, Climate and General Physical Conditions.**

—Korea is a peninsula thrust out between the Japan and Yellow Seas, and is isolated by mountain ranges from Manchuria and China. Hence the development within it of the Koreans as a separate branch of the Mongolian race. It stretches from 44° N. (latitude of Hakodate) to 34° N. (latitude of Shimonoseki), and has a monsoon climate, with abundant rains during the hot season. Its peninsula shape renders the temperatures decidedly less extreme than on the Great Plain of China in the same latitudes; on the other hand, the climate is not quite so favourable (moist and mild) as in the neighbouring parts of Japan. The build of the country is simple: a lofty mountain range rises from the east coast, where it overlooks the Sea of Japan, and falls away gradually towards the west and south, where in consequence the bulk of the agricultural land and of the population is to be found.

Centrally placed on the west coastal plain is Seoul, the capital, served by the port of Chemulpo on the Yellow Sea, while in the south the growing town and

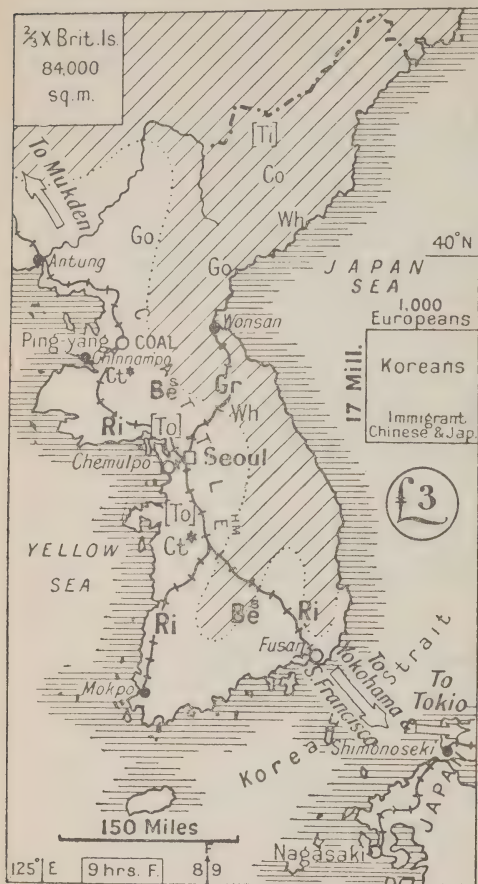


FIG. 46.—CHOSŌN.

seaport of Fusan overlooks the island-studded Korea Strait, 120 miles wide.

**Human and Economic Conditions.**—Chosen is essentially an agricultural country, growing the great monsoon staples, **cotton** and **rice**. The latter crop averages 60 million bushels. In the cooler and more mountainous east and north, *wheat* and *barley* take the place of rice, and since, owing to the sparser population, there is less pressure on the land than in Japan or China, pasture is available for **cattle**, which are reared in considerable numbers.

As in northern China, **beans** are an important crop, supplying vegetable oil, fodder and fertiliser. *Tobacco*, too, is grown in sufficient quantity to supply local needs. Another crop is *ginseng*, a drug much used in China,



## Colombia.

which is a Government monopoly. There is room for improvement in the methods of farming, and there is plenty of land awaiting development, so that this colony is a valuable asset to overpeopled Japan.

The mountains are rich in minerals, of which **gold** and **copper** are already mined, to the value of £1 million and £0·4 million respectively in 1917. **Graphite** is also produced, though it is of inferior quality. Transport facilities are, however, still lacking in the mineral regions, which lie in the uplands. A **coal**-field now being worked is an exception, since it is favourably situated in the north-west, near Ping-Yang, on the main railway route.

This railway, which terminates at Fusan, runs through the populous western belt to the Chinese frontier, and affords through connection with the Manchurian and Siberian systems. Steamers ply between Fusan and Shimonoseki, the terminus of the mainland railway of Japan.

The Koreans are skilled handicraftsmen and hand-loom weavers, but modern industries date only from the Japanese occupation, and include **iron** foundries at Chemulpo and near Fusan.

**Trade Relations.**—The largest trade is done with Japan, which takes the surplus rice crop and the bulk of the raw cotton. In 1918 the rice exported was worth £6·3 millions, the Japanese Government making large purchases to bring down the high price of food. The cotton exported rose in value from £430,000 in 1917 to £620,000 in 1918. Beans, hides and cattle make up the remainder of the exports of farm produce, while the output of iron and mild steel is worth £1·5 millions and of copper £0·5 millions.

The biggest imported item is cotton piece goods, including grey shirtings and sheetings to the value of £1·6 millions from Japan, and a proportion of British goods. There is a considerable demand for machinery (£1·5 millions), supplied partly by Japan, partly by the United States, the latter country also sending petroleum. Coal, wrought iron and sugar are other items of importance, all obtained from Japan.

**General Information.**—Chosen has a modern banking system, and a gold currency similar to that of Japan. The Bank of Chosen (with London agents) issues notes unrestrictedly against a reserve of specie. Under Japanese direction considerable advance is being made in general and technical education on Western lines. There is telegraph connection with China and Japan. Mails reach Seoul in about six weeks. A British Consul-General resides at Seoul.

## COCHIN CHINA

See **French Indo-China**, p. 228.

## COLOMBIA

**Area and Population.**—The Republic of Colombia, with an area of nearly half a million square miles (about  $3\frac{1}{2}$  times as large as the British Isles), has a population of about  $5\frac{1}{2}$  millions, that is to say, about one-eighth that of Britain. About half the country is practically uninhabited,

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and there are over a quarter million people living in the eight towns which severally have a population of over 20,000. Women are in a majority. Bogota, the capital, has nearly 150,000 inhabitants. The country is rich in natural advantages and resources, but it is also faced by quite extraordinary difficulties in regard to their development. To name but two: the principal highway, the Magdalena River, is navigable for 900 miles, but its mouth is closed by a bar, and at a central point up-stream it is broken by rapids. Again, the great eastern plains, covering thousands of square miles, are isolated by a mountain wall, nowhere less than two miles high, which stretches its unbroken length from frontier to frontier. Hence the total trade in 1918 was only £12 millions, or £2½ a head. This value was reached also in 1913, but in 1919 there was a jump to £25 millions, both imports and exports doubling in value, and preliminary figures for 1920 point to a total of over £30 millions.

**Position and Climate.**—Colombia occupies the north-west corner of South America, and thus has two sea-boards, one to the Caribbean Sea, the other to the Pacific Ocean, which are separated by the Isthmus of Panama. Almost the whole of the country lies between the Equator and latitude 10° N. (i.e., in latitudes similar to the East Indies), and hence the temperatures are very uniform. They range from an average of 78° (very hot) on the lowlands, to 58° (pleasantly warm) in the high valleys and plains that lie at elevations of seven or eight thousand feet up in the mountains. In the west and south, the heavy tropical rains fall at all seasons, especially in the lowlands and lower mountain slopes. In the north, there is a dry season during the months of December–March, when the North-East Trade sweeps over the land as a drying wind. Nowhere, however, is there any deficiency of moisture, and perennial streams are everywhere abundant.

**Physical Conditions.**—The structure of Colombia is simple. A Western or Mountain Zone may be distinguished from the Eastern Plains, which are co-terminous with those of the Orinoco in Venezuela and of the Amazon in Brazil. The mountains are, of course, the Andes, which enter the country from the south-west as an enormous rampart, some 200 miles broad, and having culminating peaks whose summits are nearly five miles above sea-level. This mountain mass is known as the Knot of Pasto. At about 100 miles from the frontier the whole stupendous range breaks up into three narrower, yet still lofty, ridges, which spread out finger-wise towards the north. Between these ridges lie two deep valleys, that of the Magdalena, and that of the Cauca, its tributary, which runs for several hundred miles parallel to the main stream before joining it on the northern coastal plain. Besides the three Andean Ridges, there is a Coast Range, of considerably lower elevation, running close along the Pacific shore, thus enclosing a third parallel valley. Part of this valley is drained northward to the Gulf of Darien (in the Caribbean Sea) by the River Atrato, while part is drained southwards by the S. Juan River, which near its mouth makes a sharp bend due west and so enters the Pacific. These valleys form the natural routes of entry into the heart of the country, which consequently has its main outlook northwards to the Caribbean Sea, although the Pacific sea-board is not without importance, especially as the Panama Canal is so near.





## Colombia.

The most easterly of the main Andean ridges, that which walls off the Plain, gradually bends eastward and runs through the neighbouring Republic of Venezuela. There is besides, a short, isolated, west to east ridge, lofty enough to be snow-capped, which borders the Colombian coast just to the east of the Magdalena delta.

The Eastern Plain has its greatest breadth from north to south, about 500 miles, while from east to west it is about 300 miles across. There is a gentle slope towards the east, and the country is drained by the Rivers Meta and Guaviare, two great head-streams of the Orinoco, and further south by the Tapure and Putumayo, which subsequently join the Amazon. The northerly part of the plain, which has a distinct dry season, includes great stretches of rolling pasture land, the so-called *llanos*, while the more abundantly watered southern part is clothed with dense virgin forest. So, too, the moister west coastal margin is more densely forested than the northern coastal plain, which has a dry season. The mountain slopes present the usual series of vegetation belts, varying from tropical forests on the lower slopes, with palms, dyewoods, rubber, and plantains, to temperate forests with oaks and cedars at higher elevations, and finally to the *paramos*, the bleak, treeless zone beginning at about two miles above the level of the sea. In many of the high valleys and basins there are hundreds of square miles of rich grassy pasture-land, not unlike the "parks" that occur in the Rockies.

**Human and Economic Conditions.**—So far as its natural configuration and climate are concerned, Colombia affords scope for the cultivation of a very wide range of crops, from tropical to temperate, and for a great variety of pastoral occupations, such as stock-raising for meat on the eastern *llanos*, dairying on the alpine pastures, and sheep-rearing on the higher and poorer mountain zones. Moreover the Andes, here as elsewhere, are extraordinarily rich in minerals, including fuels, base and precious metals, and precious stones. Yet, as has been already stated, the population supported is under 6 millions, while the annual imports amount to about £1 sterling per head, and the exports to a slightly larger sum. Moreover, the yearly State Budget totals only about £4½ millions sterling.

The key to the situation is found when the character of the exports is considered. The precious metals, principally *gold* and *silver*, and latterly *platinum*, have always held a foremost place, exceeded in value only by *coffee*. That is to say, the country has hitherto only been able to send abroad products having a very high value relatively to their bulk. It is the transport difficulty, the lack of a coherent system of roads and railways, that has hitherto checked development. And it is a difficulty emphasised by the fact that the greatest centre of population, the capital city of Bogota (150,000 inhabitants), is perched at an elevation of 8,500 ft. on the innermost of the three Andean Ridges, several hundred miles from the nearest sea-board. This city is the centre of Government, of education, of religious organisation, of art and of culture generally; that is to say, it is the principal buying centre of the Republic. Yet to reach Bogota goods must be landed first of all at Port of Columbia (Sabanilla), for a short rail trip of 17 miles to Barranquilla (49,000 inhabitants), the port of the Magdalena, where they are placed on a river steamer. They go up-stream to La Dorado, when again they must be transferred to the rails, since navigation is broken

## Colombia.

by the Honda rapids. Above the rapids, there is steamer navigation once more, and then for the third time the goods are put on rail, in this case to make the steep ascent of the mountains. A zigzag route runs from Girardot to Bogota, but unfortunately a break of gauge en route, at Facatativa, involves yet another rehandling of freight. Yet Bogota is favourably situated as compared with many other towns, which can be reached only by pack-mules. Hence the foreign manufacturer doing business with Colombia must make a special study of packing, for the cases must be of small bulk, easy to handle, and yet very strong.

Active improvements of transport facilities are however in progress, for both the Colombian Government and the Colombian people are alive to the needs of the situation. A Company has been formed (1919) to open the Magdalena bar, and both railway and road construction are being pushed forward. A consideration of the existing isolated systems will throw light upon the more important economic enterprises in different parts of the country.

Bogota stands at the edge of a lofty, fertile, mountain-girt plain, and is connected by rail with the neighbouring **salt**-mines, which are an important source of public revenue. In the same district are the famous **emerald** mines, from which practically the whole world's supply is drawn.

The chief **gold**-mining centre is Medellin (79,000 population), which stands on the central Andean ridge: a railway connects it with the Magdalena valley, except for a break of twenty miles up in the mountains. The most important **coffee** plantations are on the slopes of the eastern Andean ridge, where it swings round into Venezuela: the region is, in fact, an extension of that of the neighbouring State, which is also famous for its coffee. The Colombian "coffee towns" are Cucuta and Bucaramanga (each with over 25,000 inhabitants), and from the former a railway runs to the Venezuelan frontier, since the coffee is sent abroad via Venezuela.

Colombia has its share in the Caribbean **banana** industry, which has grown so rapidly in late years, the banana port (developed by the United Fruit Company) being Santa Marta. A short railway serves the plantations. Over the northern coast plain generally, and especially in the lower Magdalena valley, valuable crops of *cacao*, *sugar*, *cotton* and *tobacco* are successfully grown, and furnish minor exports which might be greatly increased. Another valuable agricultural region is the Upper Cauca valley, with its centre in Cali (population 28,000). Here, although the heat is not excessive because of the elevation, a high temperature is steadily maintained throughout the year which enables *sugar*, *rice*, *coffee*, *maize*, and similar crops to be grown. A railway runs from this valley to the Pacific seaport of Buenaventura, near the mouth of the San Juan. There remains to be mentioned the line joining Cartagena (population 37,000) to the Magdalena. This port has been largely superseded commercially by Barranquilla.

There are several million head of *cattle* in the country, for they are reared in most of the settled districts, e.g., on the plain round Bogota, but only their hides were sent abroad until quite recently. Now some tens of thousands are shipped annually to Cristobal, the Atlantic port of the Panama Canal, where they are slaughtered for ships' supplies. The great natural pastures of the llanos could furnish beasts for a meat-packing industry, but their development must probably await that of the Venezuelan llanos, of which they are an extension. So, too, the virgin forest of the

**Colombia.**

south-east, with an ideal climate for *cacao*, *rubber* and *cotton* plantations, will be more readily exploited when transport is improved in the Amazon basin by neighbouring Brazil.

Meanwhile, in the mountain zone, there are very considerable *coal* and *petroleum* deposits, besides *copper*, *lead*, *mercury* and *manganese* mines, all awaiting railroad developments. The oil-field has been described as the most promising in the world, and several American and British concerns are actively at work. The 25 million dollars recently handed over by the U.S.A. Government on account of the secession of Panama is to be applied by the Colombian Government to transport improvements.

**Trade Relations.**—At present coal and petroleum are supplied from abroad, as are flour and lard, which might also be produced within the country. The chief imports, however, are of manufactured goods of every description, from a needle to a grand piano. Cotton goods, the almost universal clothing material, take the first place, and are supplied by the United States and by Great Britain. The value of the trade with Britain is about £1 million in each direction annually, but there was a very great increase in 1920. That with the United States (a large customer for coffee) was £1½ millions imports, and £4 millions exports, in 1915, which (according to U.S.A. returns) increased to over £10 millions each way in 1919–20. Germany had a very considerable footing in Colombia previous to 1914.

**General Information.**—The monetary unit (established 1907) is the gold dollar, equal to one-fifth of a pound sterling, and the Government is redeeming the paper currency. Branches of the American Mercantile Bank and the Commercial Bank of South America (with London offices) are established at Bogota. The metric system of weights and measures is in official use, but the *libra* (1·102 lb. av.), *arroba* (25 libras) and *quintal* (100 libras) are commonly employed. The language spoken is Spanish, and the national religion is Roman Catholic. Mails reach Santa Marta in 13 days from Manchester (by the fruit boats), but transit from London to Bogota takes 7 weeks. There is a British Consul at Barranquilla; Vice-Consuls at Bogota, Cartagena, Honda, Medellin and Santa Marta; consular representatives at Tumaco and Buenaventura, both on the little-developed Pacific coast. A Commercial Secretary is attached to the British Legation.

**COLUMBIA, BRITISH**

See **Canada**, p. 123.

**COMORO ISLANDS**

See **Mayotte**, p. 335.

**CONGO, BELGIAN**

See **Belgian Congo**, p. 53.



## CONSTANTINOPLE

See **Asia Minor**, p. 30.

## COOK AND NEIGHBOURING ISLANDS

**Area and Population.**—The Cook Islands and neighbouring islets are annexed to New Zealand, and are administered by a New Zealand Minister. They cover about 280 square miles, and the population is between 12,000 and 13,000. The indigenous (Polynesian) population is slowly decreasing, and any future development must depend upon the immigration of more vigorous peoples from Eastern Asia or elsewhere. At Rarotonga, the chief of the Cook Group, and at the isolated Savage Islands (Niue) to the west, British Residents have been appointed to the courts of the native rulers.

**General Conditions.**—The islands, which are of coral formation, lie round about the 20th south parallel, 160° W. of Greenwich, and have an excellent climate and a good limestone soil. *Coco-nuts* are the most prominent feature of the vegetation, and the natives grow yams, bread-fruit and taro, besides engaging in fishing. The chief line of development has been in the cultivation of *fruit* (oranges, bananas, tomatoes) for the New Zealand market. The **copra** (£37,000) goes mainly to the United States. The total trade is under £200,000, and shipping difficulties led to a set-back during the war. There is a wireless station at Rarotonga.

## COREA

See **Chosen**, p. 159.

## CORSICA

See **France**, p. 216.

## COSTA RICA

**Area and Population.**—The Republic of Costa Rica has an area of 23,000 square miles (nearly half the size of England) and a population of about  $\frac{1}{2}$  million, (20 to the square mile). Costa Rica is a member of the Federation of Central American Republics. The foreign trade before the War had reached nearly £4 millions, or £8 a head, the highest figure for any of the small Central American Republics. In 1918 lack of shipping had reduced the trade to £2½ millions, but a rapid recovery is already evident (£4½ millions in 1919). The bulk of the population is of mixed Spanish and Indian descent, but there are many of pure Spanish blood in the cities, and there are some 18,000 negroes from the British West Indies on the east coast. The largest city is San José, with over 50,000 inhabitants,

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situated at a considerable elevation (5,000 ft.). The Costa Ricans are on the whole better educated than the other peoples of Central America, and took the lead in promoting the Federation of the Central American Republics.<sup>1</sup>

### Position and General Physical Conditions.

Costa Rica lies in Central America, between Nicaragua and Panama. The average distance between the Pacific and Atlantic (Caribbean) Coasts is only about 60 miles. The Republic lies between 8° and 10° North of the equator, so that the coastal lowlands are uniformly hot and wet, and consequently unhealthy, but a range of mountains runs through the country from end to end, and the chief centres of population are on these cooler and more healthy uplands. Tropical forests clothe the lower slopes of the mountains, merging into temperate forests at higher levels.



FIG. 48.—CENTRAL AMERICAN REPUBLICS.

**Human and Economic Conditions.**—A great variety of tropical food-stuffs are grown for local use, but the principal money crop is **coffee**, of which the export value is about £ $\frac{3}{4}$  million. This is grown at elevations of from 1,000 to 5,000 ft. and is of superior quality. The value of the **banana** crop, grown on the plantations along the Caribbean seaboard, sometimes exceeds that of coffee (over £1 million in 1912), but the banana trade was more adversely affected by the War than that in the more easily handled coffee. **Sugar** was first exported in 1914, and in 1919 the value of the export was £53,000. Mining, principally **gold** and **silver**, has increased, the export averaging £200,000. The forests contain very valuable hardwoods, cabinet woods and dyewoods, but the export of **timber** is comparatively small, although steadily increasing in value. There is abundance of water-power, and electricity is widely used, although on a small scale.

**Trade Relations.**—There is a railway from seaboard to seaboard—Punta Arenas to Limón—which passes through San José. From Limón a coast railway extends to the Panama boundary and will be linked with the system of the neighbouring Republic. Limón is the chief port of trade with the United States and Europe, while Punta Arenas trades with the other Latin Republics. Limón is visited regularly by British and American shipping companies, and these countries take the bulk of the trade of Costa Rica, the United States having captured the fairly considerable pre-war trade of Germany. Much of the United States trade is for reshipment. Cotton goods, construction and railway material, hardware, bags, besides flour, lard, rice and other food-stuffs for the plantation workers, are in largest demand. There is also a market for telephones and electrical goods. Preliminary figures for 1920 show that Germany has regained over 13 per

<sup>1</sup> For Commercial Map see Guatemala.

**Cuba.**

cent. of the total sales of merchandise to Costa Rica, and there are now regular sailings from Amsterdam to Limon.

**General Information.**—The unit of currency is the gold *colon*, of which 2·15 equal 1 American gold dollar, and 10·45 equal the English gold sovereign, i.e. they are worth slightly under 2s. There are four Costa Rican banks of issue, including the International Bank of Costa Rica, and the Mercantile Bank of Costa Rica, in which the Mercantile Bank of the Americas (of New York) has a controlling interest. There is a branch of the Royal Bank of Canada at San José. The metric system of weights and measures is in use. The language spoken is Spanish, and the prevailing religion Roman Catholic. There is wireless connection with Colon (Panama) and Bluefields (Nicaragua). Mails from Southampton reach Limon in 20 days. There are British Consuls at San José and Port Limon.

**CRETE**

See **Greece**, p. 256.

**CROATIA**

See **Jugo-Slavia**, p. 314.

**CUBA**

**Area and Population.**—Cuba, formerly a Spanish Colony, is a Republic since 1901, the Government of the United States having certain rights of intervention in Cuban affairs. The area of the island is rather more than 44,000 square miles (about  $1\frac{1}{2}$  times the area of Scotland), and the population is nearly 3 millions. The increase between 1916 and 1919 was over a quarter of a million, and, unlike the West Indies and Central America in general, Cuba has a population of which nearly three-fourths are white, and only one-fourth negro or mulatto. Nearly 40,000 Spanish immigrants entered the country in 1919. The total foreign trade has steadily increased, and averaged £60 millions (£53 a head) in 1918 and 1919. The excess of exports was £32 millions, a result due mainly to the high price of sugar.

Havana (Habana) is the largest city in Central America, and has 360,000 inhabitants, its prosperity depending, however, on the famous tobacco and not on sugar. Santiago (the south-eastern seaport), Matanzas, Cienfuegos, Camaguëy, Santa Clara, Sancti Spiritus, Guantnamo, Pinar del Rio and Manzanillo are all towns of over 50,000 inhabitants.

**Position and General Physical Conditions.**—Cuba is the largest of the Greater Antilles, and lies just within the Tropics, at the mouth of the Gulf of Mexico. The Strait of Florida separates it from the United States, and the Strait of Yucatan from southern Mexico. The coast-line is deeply indented, with many good harbours, and the interior is diversified by hill and mountain ranges, notably the S<sup>a</sup>. de los Organos in



**Cuba.**

the west and the far loftier S<sup>a</sup>. Maestra in the east, both having a west to east trend. Cuba, like other tropical islands, has a warm and pleasant winter climate, while the summer heat is tempered by the sea breezes, and by the plentiful rainfall during that season. The natural vegetation is a luxuriant tropical forest, containing mahogany, cedar, logwood and other valuable timbers, of which thousands of square miles remain uncleared. On the S<sup>a</sup>. Maestra there are temperate forests with oaks and pines.

**Human and Economic Conditions.**—A great variety of tropical fruits, vegetables and cereals is grown for the local food supply, but the chief money crop of Cuba, except in the extreme west, is **sugar**. The crop is grown on large plantations, many of them owned by foreign capitalists (Americans and Europeans), and equipped with up-to-date machinery, many hundreds of miles of plantation railway bringing the canes to the centrals. Of these there are 43 in Matanzas, and 73 in Sta. Clara,



FIG. 49.—CUBA.

the two provinces immediately east of Havana, where three-quarters of the cultivated land is under sugar. There are, besides these, 100 mills elsewhere. The production has increased enormously, from just under 2 million tons in 1910, to 2½ millions in 1914, and then up to 4½ millions in 1918–19. Java, the world's second largest producer, has never reached a total of 2 million tons. Apart from the world shortage of sugar in recent years, Cuba has at her doors the huge United States market, that country spending over £63 millions on sugar in 1918–19. A reciprocal tariff allows the free entry of Cuban sugar into the States, whereas the British West Indies have no such advantage. The plantations attract labour from Haiti, Jamaica and Barbados. In 1921 sugar prices fell to less than one-third their level early in 1920, so that Cuban prosperity received a check.

Second in importance to sugar is the **tobacco** crop, the world-famous Havana cigar-tobacco being grown on the southern slopes of the S<sup>a</sup>. de los Organos in Pinar del Rio province. Most of the crop is manufactured in the country, giving rise to the valuable *cigar*, *cigarette* and tobacco industry of

## Cuba.

Havana. In 1918 over 300 million cigars and over 300 million boxes of cigarettes were made. Yet the value of the tobacco export is now less than one-tenth of that of the export of sugar. Since the United States has not waived the duty on imported tobacco, there is a Havana cigar-manufacturing industry carried on (largely by Cubans) at Key West, on the coral reef off the coast of Florida, 90 miles across the Strait. The well-known cigar-boxes are made in Cuba from cedar-wood, which is abundant.

The proximity of Cuba to the States and the existence of a car-ferry from Havana to Key West has led to a trade in winter *vegetables*, and *fruits*, notably pine-apples and bananas, besides oranges and grape-fruit during the months before the Florida and California crops ripen. Another industry of some importance is the collecting and extraction of wild **honey**, the export amounting to over 1 million gallons, worth £250,000. Over 1 million lbs. of **beeswax** are also exported.

The *cattle* industry of Cuba is flourishing, live-stock having considerably increased during the last few years. The latest returns give the number of horned cattle as  $4\frac{1}{2}$  millions, and of horses  $\frac{3}{4}$  million.

The forests yield *timber* for local purposes, e.g. cedar for cigar-boxes, and a little **mahogany** is exported, but there is room for considerable development, as there is also in the *mining* industries. The S<sup>o</sup>. Maestra are rich in iron, manganese and copper, which are worked to some extent, the output of **iron ore** (from the Mayari mines) being the most considerable, while that of **copper** is about 5,000 tons annually, and that of **manganese** ore reached 68,000 tons in 1918. All are shipped to the United States.

**Trade Relations.**—The railway system of Cuba has been greatly extended, and is now fairly complete (3,200 miles). Shipping facilities are also good, nearly 3,000 vessels entering the port of Havana in 1919. The bulk of the trade is with the United States, which in 1919 took 73 per cent. of the exports and supplied 75 per cent. of the imports. That of the United Kingdom is very one-sided, this country taking 20 per cent. of the exports, but supplying only 3 per cent. of the imports in the year under consideration. Spain (with the advantage of a common language and neutrality during the War) has a better position as regards the import trade, supplying 4 per cent. of the goods required, but taking little more than 1 per cent. of the exports. Food-stuffs make up one-quarter of the total imports, while other large classes are textiles (principally cottons) £6 millions, machinery £5 $\frac{1}{4}$  millions, metals and metal manufactures £2 millions, and chemicals £2 $\frac{1}{4}$  millions. A recent detailed list of requirements includes sugar-making machinery; agricultural machinery and implements; electrical machinery; sewing machines, motor-cycles, bicycles and parts; chemicals, acids, fertilisers, salt and oxides; textiles, woollen goods, cotton piece goods; knitted goods, laces and trimmings; linen fabrics; jute bags; boots and shoes; cutlery, crockery, earthenware and hardware; structural iron and steel, barbed and plain wire, nails, pipes and rails. There is a market also for expensive luxury articles for the newly rich. Americans consider that British and Spanish competition in many of these lines may become formidable. Canada has established direct sailings to Havana, and hopes to build up a trade.

**General Information.**—The unit of currency is the gold *peso*, equivalent in value to the United States dollar, the 5, 10 and 20 peso pieces corresponding to the American gold coins. United States coinage is also

**Cyprus.**

legal tender. The chief banking establishments are the Banco Nacional de Cuba, the Royal Bank of Canada, and the National City Bank of New York. The metric system of weights and measures is in use. The language spoken is Spanish. Mails reach Cuba from France and Spain in 15 days, from New York in 3½ days. There is cable connection with New York and South America. A British Consul is stationed at Santiago, Vice-Consuls at Havana, Camaguëy (in the interior), Cienfuegos and Cardenas (sugar ports).

**CURAÇAO**

**Area and Population.**—Curaçao is a Dutch Colony administered by a Governor. The total area is about 400 square miles, the islands included being Curaçao (210 square miles), Bonaire, Aruba, St. Martin, St. Eustache and Saba. The population is 57,000, of whom nearly 35,000 live in Curaçao island, while of these more than 20,000 are found in the chief town and seaport, Willemstad. The white element in the population is mainly Spanish, and the bulk of the people are Roman Catholics. The total trade is over £½ million, the imports being greatly in excess of the exports. The reason for this is that Willemstad is a free port, with a large and safe harbour, and is visited by over 3,000 ships yearly, including the vessels of war of various nations cruising the Caribbean waters. Hence there is a large trade in ships' supplies and luxuries, besides bunkering coal and oil.<sup>1</sup>

**Position and General Conditions.**—Curaçao, Bonaire and Aruba lie just off the mainland of Venezuela (South America), and Curaçao serves to a certain extent as an entrepôt for this State and the neighbouring Republic of Colombia. The group is outside the hurricane track, and is free from earthquakes, while as in other small tropical islands the climate is healthy and delightful. The latitude of these three islands is about 12° N. St. Martin, St. Eustache and Saba lie some distance away, between the Virgin Islands and St. Kitt's, in the Leeward Group. They produce **salt**. The Curaçao group proper grow maize, beans and **sisal**, and such peasant industries as sandal-making, straw hat and lace-making flourish owing to the ready market. The manufacture of artificial ice and oil refining are important at Willemstad. Crude oil is imported from Venezuela and Trinidad.

**General Information.**—The unit of currency is the *guilder* (normally, 12 guilders = £1). The Dutch West Indian Bank does business at Curaçao. There is cable communication via Haiti with the United States. There is a British Consul at Curaçao.

**CYPRUS**

**Area and Population.**—Cyprus, formerly a Turkish Dependency administered by Great Britain, is now a British Colony, having been

<sup>1</sup> For Map, see Venezuela.



## Cyprus.

annexed in 1914. It is administered by a High Commissioner. The area of the island is nearly 3,600 square miles, i.e. about half the size of Wales, and the population rather over 300,000. The capital and largest town is Nicosia, in the interior, with 16,000 people. The three chief ports, Larnaka, Limassol and Famagusta, have each between 5,000 and 10,000 inhabitants.



FIG. 50.—CYPRUS.

About one-fifth of the Cyprjotes are Moslems, and the majority of the remainder are Christians, adhering to the local Church of Cyprus. The predominating race is Greek, and the modern Greek language is most commonly spoken, although the official language is English. The population includes also Turks (speaking Turkish) and Armenians.

Cyprus is valuable as a source of agricultural produce, and has a total external trade (in 1919) of nearly £3 millions, or about £10 a head.

### Position, Climate and General Physical Conditions.

—Cyprus lies in the eastern Mediterranean, not far from the coast of Syria and to the north of Egypt, between latitudes  $34\frac{1}{2}^{\circ}$  and  $35\frac{1}{2}^{\circ}$  N., i.e. in the latitude of northern Morocco. Hence the climate is decidedly of the Mediterranean type, with very hot, dry summers, and moist, warm winters. Running streams and rivers become dry torrent beds in summer. The greater part of the island is hilly or mountainous, a ridge running along the northern coast, and forming a long promontory to the north-east, while a wider range occurs in the south. Between the two lies the Mesaoria plain, intensely hot in summer, in which Nicosia stands. Numerous valleys intersect the hills, and the island has always been renowned for its fertility. Forests of oak and pine occur on the well-watered ranges, and the Depart-

## Cyprus.

ment of Forestry is engaged on the work of conservation and reafforestation. On the lower hill slopes the usual evergreen and aromatic shrubs and small trees of the Mediterranean seaboard occur. First-class timber forest covers 220 square miles, mixed timber and scrub 174 square miles, and scrub forest 306 square miles, i.e. 700 square miles in all, or rather under one-fifth of the island. During the War, wood for fuel was supplied to Egypt, where timber is absent.

**Human and Economic Conditions.**—The majority of Cyprïotes are peasant farmers, and about one-half the total area of the island is under cultivation, while a further 320,000 acres might be cultivated. Methods are very primitive, e.g. the wooden plough is used, and oxen are employed to tread out the corn on the threshing floors, but great improvements are being effected by the Agricultural Department, and there is a growing demand for modern ploughs, cultivators, tractors, and agricultural machinery generally. Artificial manuring is also on the increase, and irrigation is practised where possible.

The Mediterranean climate is, of course, peculiarly adapted for cereals, and **wheat** and **barley** are the leading crops, both of which yield a surplus for export (valued at over £200,000 in 1919). Considerable attention is paid also to vegetables, and there is a considerable export of *potatoes* to Egypt and Syria, and a smaller one of *onions*. On irrigated lands *cotton* does well, and the 1919 crop was 780 tons (35,000 bales): the bulk is exported to Greece (value £100,000). **Tobacco** is widely grown, and is exported to the United Kingdom, but there is room for improvement of quality. Tree culture is important, since trees are well adapted to withstand seasonal drought. The *olive* and *carob* are the most important cultivated trees, and are found also growing wild. The olive-oil produced does not supply local needs completely, but the carobs (locust beans) are exported in quantity, mainly to the United Kingdom, where they are used as cattle-food, and to adulterate chocolate. The value in 1919 of this export was over £½ million. The cultivation of Spanish *chestnuts* has begun. Fruit-trees also do very well, and there is a small export of fresh fruit (pomegranates, oranges, plums) to Egypt, while the *dried fruit* industry (apricots, figs, etc.) is capable of great development. The **vine** also finds suitable climatic conditions, and wine production is important, a considerable surplus remaining for export to Egypt and Syria (value over £125,000) after the local market has been satisfied. The **raisin** and **sultana** industry is increasing, the export value being over £120,000. The stock-raising industries are of local importance only, *sheep* and *goats* being the principal animals raised. *Silkworms* are also reared, and cocoons exported. Mining, so important in ancient days, is being revived, but at present *asbestos* is the only product of importance: this goes chiefly to Italy. The **sponge** fisheries of the surrounding seas are mainly exploited by boats from Greece.

Manufactures are of very little importance. They include a little silk and cotton weaving, and the manufacture of tobacco and cigarettes.

**Trade Relations.**—The exports of Cyprus go largely to Egypt, Syria and Greece, but the United Kingdom also takes a considerable proportion, and France is also a buyer. The imports consist, as regards nearly £1 million in value, of miscellaneous manufactured goods, coming mainly from the United Kingdom, or as re-exports from Egypt. Small consign-

## Czecho-Slovakia.

ments of various food-stuffs, including colonial wares and of tobacco, have a total value of nearly £ $\frac{1}{2}$  million.

The chief port is Famagusta, which handles the bulk of the external trade; Limassol and Larnaka are of secondary importance. Famagusta has the advantage of standing at the eastern extremity of the Mesaoria plain, through which the principal railway runs.

**General Information.**—The unit of currency is the pound sterling, but the *piastre* at the rate of 180 piastres to the sovereign is in common use. Government currency notes of 5s. and upwards are the main medium in circulation at present except for small amounts. The chief banking establishments are the Imperial Ottoman Bank and the Bank of Athens (with London offices), which are not empowered to issue notes. A Bank of Cyprus has recently been established. The unit of weight is the *oke* (800 okes=1 ton) or the *cantar* (44 okes), and the unit of capacity the *kile* of 8 gallons.

Mails reach Cyprus in 6–9 days. The chief controller of Customs and Excise at Larnaka acts as Imperial Trade Correspondent.

## CYRENAICA

See **Italian Libya**, p. 294.

## CZECHO-SLOVAKIA

**Area and Population.**—The Republic of Czecho-Slovakia has an area of about 56,000 square miles (nearly half that of the British Isles) and a population of nearly 14 millions. It includes Bohemia and Moravia, formerly parts of Austria, in which a majority of the population are Czechs, and Slovakia, formerly part of the Kingdom of Hungary, in which a majority of the inhabitants are Slovaks. Both Czechs and Slovaks are of Slavonic race, but the population includes a large German minority, especially on the borders of Germany and Austria, and a considerable number of Magyars. There is besides, in the extreme east of the new State, an area mainly inhabited by Ruthenians, who are akin to the Russians of Ukraine, and these people have been granted autonomous government within the Republic. The capital and largest city is Prague on the Moldau, in the centre of Bohemia, with over 670,000 inhabitants, while Brünn in Moravia (220,000 inhabitants) is second in importance. The chief Slovak city is Pressburg, (now called Bratislava), a port on the Danube with 93,000 people. All these three cities have Universities. Other large towns are Kaschau (Kosice) in the east of Slovakia, Pilsen in Bohemia (111,000), Olmütz in Moravia, and Ostrau (171,000), a great mining centre. Figures for the external trade of the new State are below normal (£173 millions in 1920), while the pre-war output, both agricultural and industrial, went largely to other parts of the Austro-Hungarian Monarchy, but Czecho-Slovakia has large internal resources, besides many important and old-established industries, and should take a leading part among the small States of Central and East Central Europe. Education is advanced, and the percentage of illiterates very low.



## Czecho-Slovakia.

The credit balance on the external trade of 1920 was £8 millions (at the average rate of exchange), while whereas the weight of imports in 1921 approximated to that of 1920, the weight of exports increased over 40 per cent., so that in terms of value, there will be a still larger credit balance for that year, in spite of the fall of prices.

**Position and General Physical Conditions.**—Czecho-Slovakia lies between latitudes  $47\frac{1}{2}^{\circ}$  and  $51^{\circ}$ , i.e. in the same latitudes as Northern France and Southern England, but owing to its inland situation has a more extreme climate, the average January temperature being well below freezing-point, while the summers are as hot as in Bordeaux. On the plains of Bohemia and Moravia, which are hemmed in by mountains and hills, the rainfall is moderate (about 20 in.), and falls chiefly in summer, but the mountains, especially in Slovakia, have considerable rains, and



FIG. 51.—CZECHO-SLOVAKIA: AGRICULTURE AND MINERALS.

heavy snow in winter. The Bohemian Forest, Erz Gebirge, Giant Mountains and Sudetes close Bohemia in on three sides, while the fourth lies fairly open south-eastwards to Moravia. A gorge has, however, been cut by the Elbe through the northern rim, and thus the drainage of Bohemia (by the Elbe, Moldau and Eger) is to the north German Plain, and modern routes follow this direction. Slovakia lies almost entirely among the Carpathians, which broaden out in the west to three distinct masses—the Western Carpathians, Tatra and Hungarian Ore Mountains. Between the Western Carpathians and the Sudetes is a low sill—the Gate or Gap of Moravia—through which the Slavonic population entered this region. The head-streams of the Oder (flowing to the Baltic) and of the March (flowing to the Danube) are in the Gate, which is an important route-way from the Danube Basin to the Northern Plains (Germany, Poland, Russia) and a canal is planned to join the two rivers. Slovakia, like Moravia, is drained to the Danube, the Waag and Gran being the chief rivers, and these flow in their lower courses across part of the Upper Hungarian Plain, which is the chief lowland occupied by the Slovaks. Farther east the mountain belt narrows, and its crest is lowered.

## Czecho-Slovakia.

Here a part of the plain of the upper Theiss is included within the boundary of the new State.

**Human and Economic Conditions.**—A recent estimate gave 40 per cent. of employed persons in Bohemia and Moravia as engaged in industry, as against 35 per cent. on the land, but in Slovakia and Ruthenia 63 per cent. of the population is engaged in agriculture. The lowlands of Bohemia and Moravia are fertile and produce good cereal crops—*wheat, rye, oats and barley*—while from the small Slovakian plains and valleys comes in addition some *maize*. The harvest is, however, at present insufficient for local requirements, but when the depleted flocks and herds are restored, so that there are sufficient draught animals, besides natural and artificial manures, there should be no need of import in years of good harvest. Root crops are important, especially **potatoes** and **sugar-beets**. The former are used largely for the distillation of *alcohol*, and the latter yield a considerable surplus of **sugar** for export, this being one of the leading economic assets of the country. Deep ploughing by cable ploughs is resorted to, only tested seeds are used, and the disposal of the by-products—molasses, alcohol, fodder and manure—is carefully organised. The chief refineries are in the Prague district, and the output has (1919–20) reached three-quarters of a million tons, a figure that will probably be doubled when normal conditions are completely restored.

**Hops** are grown in the Eger valley (Saaz), and near Olmütz (Moravia), and these, with the local barley crop, are the raw material for the famous light *beers* brewed at Pilsen, Prague and many small country towns, which are in wide demand. A few thousand tons of hops are sold abroad. *Flax* is a minor crop of Bohemia and Moravia, while some *hemp* and *tobacco* are cultivated in Slovakia. *Vines* are fairly widely distributed, but are of local importance only. Orchard *fruits*, however, are an article of commerce, particularly apples, pears, plums and cherries.

The **timber** resources of the country are very considerable, the mountain borders of Bohemia and the Carpathian Mountains being clothed with forests of *oak* and the less valuable *beech*, with *pine* and *fir* at higher altitudes. These forests are systematically and scientifically exploited, and there is a large output of *sawn timber*, pit props, ply-wood, wood wool, paper pulp, *paper*, cellulose and cardboard. There is, besides, the manufacture of the well-known "Austrian" bent-wood *furniture*.

Mixed farming is usually pursued, so that there are normally sufficient cattle, sheep and pigs for local requirements, the cattle being usually stall-fed in the lowlands, or pastured in the open on the hills and mountains.

The *mineral* resources of the new State are very considerable, the abundance of **coal** being the basis of the manufacturing industries. There are mines both in Bohemia (Kladno, Pilsen, Schatzlar, Schwadowitz) and in Moravia (Mährisch Ostrau and Rossnitz), while some brown coal is obtained from Handlova (Slovakia) and there are large deposits of lignite in the Eger valley (Bohemia). Although there is an export of inferior coal, coking coal is deficient and is obtained from Silesia. Hence the chief smelting works are in Moravia, although Prague is also an important centre. The output of two leading firms in 1919 was 5 million tons pig-iron and 6 million tons of steel, representing two-thirds of their total capacity. **Iron** ore is plentiful, especially in Bohemia and Slovakia. There is also a small, but useful, output of *zinc, copper, gold and silver*. The **oil**-fields of Slovakia are of

**Czecho-Slovakia.**

considerable promise, although the chief wells (at Ghely in the Waag basin) have so far yielded only about 50,000 barrels a year. Deep boring and systematic exploitation has now commenced, an agreement having been made with the Standard Oil Company as regards important concessions. In the mountains of Slovakia there are also unworked deposits of tin, cobalt, nickel, manganese and copper, but their value cannot yet be estimated.



FIG. 52.—CZECHO-SLOVAKIA: MANUFACTURES AND COMMUNICATIONS.

The excellent kaolin of the Karlsbad district has given rise to an important porcelain industry, while the fine glass sands, also found mainly in the north-west, are the basis of a large glass manufacture, centred at Prague, Teplitz, Olmütz, Aussig and Neustadt. Bohemia makes about 6 per cent. of



## Czecho-Slovakia.

the world's bottles, besides window glass, table, ornamental, and scientific glass.

The manufacture of *textiles* is associated with Prague and Brünn, and in general with the north-east of Bohemia and the north of Moravia. *Cottons*, *woollens* (partly with local wool), *linens* (based partly on local material) and a little *silk* are all noteworthy, this region having supplied 80 per cent. of the total output of the former Austrian Empire in this respect. Certain classes of woollens, e.g. flannels and cheap carpets, were formerly marketed abroad, but the bulk of the output was consumed within the Empire.

The **leather** industry is well established, including the manufacture of *boots* and *shoes* for home consumption, and the manufacture of *gloves*, the latter amounting to 1½ million dozen pairs, which as "Austrian" gloves were well known in foreign markets.

**Chemical** industries are important at Prague, Brünn and elsewhere, there being a large-scale output of artificial manures, potash (for the glass industry), sulphuric acid, and matches. **Machinery** is also manufactured in the leading cities, especially railway plant, textile and sugar-milling machinery, agricultural machinery and tools. The steel-works also turn out constructional steel, steel rails and so forth, and there are numerous miscellaneous *metal manufactures*, such, for example, as electrical apparatus and fittings.

**Trade Relations.**—Czecho-Slovakia has no seaboard, and hence her most natural markets would be found in the countries round about her, especially in Germany, Poland, Austria and Hungary, and to a less extent in Jugo-Slavia, Rumania, Scandinavia, and the Near East. The natural lines of communication are by the Danube and the Danube valley, and by the (nationalised) Elbe and its valley to Hamburg, or by the (nationalised) Oder and its valley to Stettin. Special facilities will be granted at these two German ports. The river port of Pressburg is being enlarged, so that it will have an annual capacity of 5 million tons. Berlin is readily reached by rail or more indirectly by water, and affords a market for such articles as fruit and vegetables, beer, glass, gloves, paper, furniture, timber, and porcelain. The chief imports required are raw materials, particularly cotton, wool, metals, colonial wares, including oil-seeds and groceries, supplementary cereals, and specialised manufactures, e.g. classes of textiles, metal goods and machinery not produced locally. Pig-iron, coking coal and mineral oil will also be required. The pre-war trade was mainly with Germany, since Hamburg and Bremen served as entrepôts for such produce as coffee, tobacco, cotton, which came mainly from the Americas. Bohemian sugar, glass, gloves, beer and furniture might now be marketed directly in Britain in exchange for British manufactured goods and luxury articles.

**General information.**—The unit of the currency is the *krone*, normally worth 10*sch.*, but now of fluctuating exchange value, and the metric system of weights and measures is in general use. The Crédit Lyonnais is the London agent for the leading Czecho-Slovakian banks.

The Czech and Slovak languages are officially in use, but German is widely understood. Mails reach Prague in 3-4 days. There are British Consuls at Prague and Bratislava (Pressburg), and a Commercial Commissioner is attached to the British Embassy.

**DAHOMEY**

See **French West Africa**, p. 231.

**DALMATIA**

See **Jugo-Slavia**, p. 314.

**DANZIG**

**Area and Population.**—The Free City of Danzig, constituted in 1920, has an area of 709 square miles and a population of 354,000, of whom about 25,000 are Poles and the rest (apart from foreigners) are Germans. The City has entered into fiscal union with Poland, and is under Polish suzerainty as regards foreign affairs.<sup>1</sup>

**Position and General Conditions.**—Danzig stands at the mouth of the Vistula, and is the leading port of the Eastern section of the Baltic Sea. Vessels drawing up to 23 feet can discharge at all seasons, a channel being kept open by ice-breakers in winter. Nearly a million tons of shipping entered and discharged at Danzig annually before the War, since it is the main outlet for the grain, timber and sugar of a great part of the European Plain. It now serves as the sole seaport for the Polish Republic. It has important ship-building yards.

German currency is in use, and the metric system of weights and measures. There is a branch of the German Reichsbank and of the British Trade Corporation in the City, besides fifty other banking establishments or agencies.

There is a British Consul at Danzig.

**DARFUR**

See **Anglo-Egyptian Sudan**, p. 13.

**DENMARK**

**Area and Population.**—The Kingdom of Denmark has an area of 16,600 square miles (about one-seventh the size of the British Isles), and a population of 3 millions (one-fourteenth that of the British Isles). These figures include North Slesvig, transferred from Germany. The country consists of the mainland peninsula of Jutland (which forms two-thirds of the whole area, but has less than half the total population) and a number of islands in the Baltic Sea, of which Zealand, Funen, Laaland, Falster and Möen are the chief. The only large city is the capital, Copenhagen, situated on the east coast of Zealand, which has (including the suburb of Frederiksberg) 606,000 inhabitants. Aarhus, the chief town of Jutland, also facing east, has only 65,000 people, Odense on Funen has 45,000, while Aalborg,

<sup>1</sup> For Map see Poland.

## Denmark.

Horsens and Randers, small towns also in the east of Jutland, have from 25,000 to 40,000. The large aggregation of shipping, trading, manufacturing and fishing population at Copenhagen brings the total urban population up to rather more than 40 per cent., although, broadly speaking, Denmark is decidedly rural. The population has increased by about half a million in the last fifteen years, but there is a steady drain of several thousands of persons a year by emigration to the United States and Canada. The foreign trade before the War was steadily increasing and had reached £90 millions, or about £30 a head, imports being normally in excess of exports, the balance being paid for by the services of the Danish merchant marine. The entrepôt trade (centring at Copenhagen) had a value of about £10 millions, and several millions of pounds worth of goods are also transhipped at the same point. In 1919 the total trade was £191 millions, or nearly £64 a head, this high figure being due to a sudden increase of imports consequent on the scarcity of goods during the war years. The exports during the same year were decidedly below the normal level, for reasons which will be dealt with subsequently. In the year 1920 the export trade recovered, and though the imports again increased, the adverse balance was reduced.

**Position and Climate.**—Denmark lies roughly between 54° and 58° N. latitude, i.e. in the same latitudes as Britain from North Yorkshire to Aberdeen. Thus the climate resembles that of the north-eastern counties, save that it is rather more severe in winter, and a little hotter in summer. The rainfall tends to be heaviest in the summer and autumn months, and averages 30 to 40 in. The harbours can always be kept open by ice-breakers.

**General Physical Conditions.**—As the distribution of towns and seaports shows, the eastern side of Jutland and the Baltic islands are the most favourable to human settlement. The west of Jutland presents a smooth dune-bordered coast to the North Sea, with shallow sheets of water behind the lagoons. There are no natural harbours, Esbjerg being artificially created to deal with the growing direct trade with the British Isles. The soil in this region is infertile, and here occurs most of the unproductive land of Denmark—largely moor, heath and peat-bog. The eastern region is built largely of chalk; there are numerous inlets affording deep and safe anchorage, and the soil is generally a fertile loam. Hence the outlook of Denmark is normally to the Baltic and to the Continent, rather than to the North Sea or across the Atlantic. Much of the chalk country was formerly covered with beech forests, but the wooded area to-day is only about 800 square miles.

**Human and Economic Conditions.**—Denmark is predominantly an agricultural country, and farming is carried on upon modern scientific lines, there being a large number of agricultural schools and an important Agricultural College at Copenhagen. Education, generally, is in an advanced state, and a feature of rural life is the strength of the co-operative movement. Some 7 million acres are under cultivation, the majority of holdings being relatively small—from 45 to 90 acres—thus facilitating intensive cultivation. Over a million acres are under **oats**, and half a million each under **rye** and **barley**, the latter used both for brewing and for fattening pigs. Wheat, to which the climate is not very well suited, is comparatively unimportant. Root-crops for fodder, *sugar-beets* and *potatoes*



## Denmark.

are also very generally grown, the last named being used for the distillation of brandy. The output of **beet-sugar** in 1918 was 141,000 tons, as against 135,000 tons in 1912.

The agriculture of Denmark is, however, an industry subsidiary to



FIG. 53.—DENMARK.

stock-raising, more than half the cultivated area being under pasture and meadow. There were in 1920 over 560,000 *horses*, 2½ million *cattle* (including about 1 million milch cows), over half a million *sheep*, a million *pigs* and 14 million head of *poultry*. These figures compare unfavourably with those of the census for 1910. The number of horses and horned cattle shows an increase, but the number of sheep is diminished by nearly

## Denmark.

$\frac{1}{4}$  million, and of pigs by  $\frac{1}{2}$  million. This decrease was due to the difficulty of importing food-stuffs during the war years, the home-supply being inadequate to the number of animals reared. The result was the falling off in the export of animal produce which is Denmark's staple of trade, for even apart from the decreased numbers of stock, those remaining gave a lower yield of milk, lard, bacon, etc. The figures show, however, a great improvement on those for 1919.

It is in the *dairying* industry that the co-operative movement is strongest, the majority of the 400,000 members of such societies being joint owners of creameries (for **butter** manufacture) and of **bacon** factories. Previous to the War the export of Danish butter to Great Britain alone was valued at £10 millions, and that of bacon at £7 millions. Germany is also a large customer for the same classes of goods, including **lard**. Tens of thousands of cases of *eggs* are now shipped weekly to the British Isles.

With the renewed import of maize, cotton-seed and linseed, the animal industries are returning to normal. An indirect effect of the shortage was to lessen the home supplies of manure, and that at a time when imports were likewise cut off, so that although high prices brought apparent prosperity to the farmers, the actual wealth of the country was diminished by impoverishment of the soil as well as by depletion of stock.

Developing in the first instance from the dairying and sheep-rearing industries, the manufacture of **margarine**, now derived entirely from vegetable oils, had assumed an important position in Denmark. The pre-war output reached about 50,000 tons, but by 1918 the industry was brought to a standstill, since the raw material could not be imported from abroad. It has, however, subsequently revived to a large extent, the 1919 output being 40,000 tons.

The *fisheries* of Denmark, in and about the Belts and Kattegat, and in the North Sea, are of considerable value, the catch being worth about £1 million in 1914, and averaging £2½ millions in the period 1916–19. Herring and mackerel are of first importance, followed by cod and flat-fish.

With excellent shipping facilities, and a large entrepôt trade at Copenhagen, Denmark normally found it easy to import fuel and, if necessary, raw material for her manufacturing industries. There is a large home supply of hides and skins, and the output of the *tanneries* and *boot and shoe* factories is valued at £5 millions. Odense is an important leather market for foreign buyers, especially for calf-skins. The *woollen* industry is also flourishing, producing goods to the value of over £2 millions, while *cottons*, *paper*, *glass-ware* and *dairying machinery* are also manufactured. The high price of coal and coke has been a very serious handicap to Danish industry, both directly, and indirectly as raising the cost of transport. Coal forms a very heavy item on the list of imports, and the inflated price at which it has been bought has contributed to the present adverse balance of trade, which in turn has resulted in a depreciation of the krone.

**Trade Relations.**—Concentrating as she does upon the dairying and allied industries, Denmark requires a very wide range of imports. They include wheat and wheat flour, maize, cotton-seed and linseed, vegetable oils and oil-seeds, colonial wares, manures, coal and coke, petrol and benzine, building materials such as granite, iron goods, including bars, plates, rails, wrought iron and hardware, timber, metal goods, etc. Germany takes the lead in supplying these imports, followed by Great Britain, the

**Dominican Republic.**

U.S.A., Norway and Sweden; there is also a considerable direct import of grain from Argentina. Germany and Great Britain between them, with their almost unlimited demand for food-stuffs, take the bulk of the export trade, followed at a considerable distance by Sweden and Norway with their much smaller populations. Nearly all the trade is centred in Copenhagen, the secondary port being Aarhus. Trade with Sweden is facilitated by train-ferries across Kattegat, and in general the transport system of Denmark is adequate, train-ferries also linking Jutland, Funen and Zealand. The Danish merchant fleet had in 1914 a tonnage of nearly  $\frac{3}{4}$  million, which was reduced by war losses to little more than half a million. The fall in freight rates in 1920 led to a decline in "invisible exports," thus adding to the adverse balance and the fall of the exchange. Copenhagen, including the Free Port, can accommodate vessels up to 30 ft. draught. Esbjerg, the port for quick traffic with Britain, has a minimum depth of 25 ft.

**General Information.**—The unit of currency in Denmark is the *krone* of 100 *öre*, worth 1s.  $1\frac{1}{2}d.$ , or 18 to the pound sterling. The standard of value is gold, but the actual currency consists of notes issued by the National Bank. The leading London banks act as agents for the Danske Andelsbank, the Kjobenhavns Handelsbank, and the Privatbanken i Kjobenhavn. The metric system of weights and measures is in general use. Mails from London reach Copenhagen in one day. There are British Consuls at Copenhagen and Aarhus; Vice-Consuls at Esbjerg, Odense, and a number of minor ports and market centres. A Commercial Secretary is attached to the British Legation.

**DIEGO SUAREZ**

See **Madagascar**, p. 325.

**DJIBOUTI**

See **French Somaliland**, p. 230.

**DOMINICAN REPUBLIC (SANTO DOMINGO)**

**Area and Population.**—The Dominican Republic, nominally administered by a President and Congress, is, since 1916, under a Military Governor appointed by the United States, and is administered by American naval officers. The total area is rather more than 19,000 square miles (one-third the size of England and Wales) and the population numbers nearly a million. The birth-rate is high and the death-rate low, so that labour is abundant. The pure white population is small, consisting of descendants of Spanish settlers, the mass of the people being of mixed Spanish, negro and (West) Indian descent. The total foreign trade for 1918 was £8½ millions, or nearly £9 a head, and in this year, owing to shortage of shipping, the demand for imports could not be supplied, while since this date production has increased. Hence the 1919 figure was £12 millions,



## Dominican Republic.

and the present figure must be considerably higher. The capital city, Santo Domingo, on the south coast, has 27,000 inhabitants: Santiago, lying in the upper valley of the Yaque, has 15,000; San Pedro de Macoris, also on the south coast, has 10,000.

**Position and General Physical Conditions.**—The Republic forms the eastern half of the island of Haiti, one of the Greater Antilles, lying between Cuba and Porto Rico. It extends between 18° and 20° N. latitude, and between 68° and 74° E. of Greenwich. Hence the climate is tropical, with plentiful summer rains, the prevailing winds being north-east. Mountain chains run through the country from west to east, so that whereas round the coast sea-breezes temper the heat, the interior

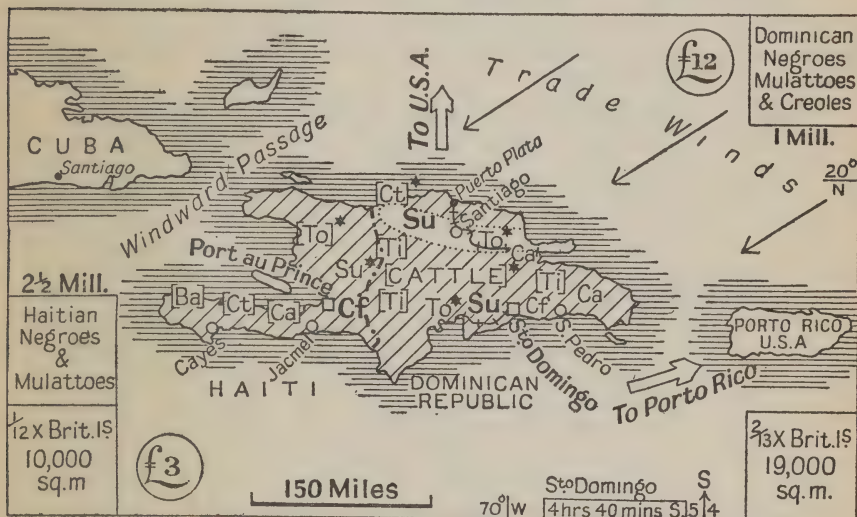


FIG. 54.—DOMINICAN REPUBLIC AND HAITI.

is cooled by the elevation of the land. The soil, especially in the many valleys, is extraordinarily rich, and there are hundreds of square miles of virgin forest, tropical in character (mahogany, satinwood, bananas, palms), on the lowlands, and temperate (with fine pine-trees) on the Cordillera. Hurricanes are occasionally very destructive.

**Human and Economic Conditions.**—The Dominican farmers grow bananas, maize, coco-nuts, tobacco, and many varieties of fruit and vegetables for their own use, the methods employed being very primitive. The principal money crop is **sugar**, of which the output has reached 180,000 tons, or nearly twice that of Demerara (British Guiana). Much of this is grown on large estates, on which there are over 250 miles of light railways, and much money is being spent on improved mills and machinery. Second in importance is **cacao**, of which the output is between 20,000 and 30,000 tons, a large proportion being consumed locally. The more rainy eastern part of the island is most suited to cacao, the valleys affording shelter from the wind.

Products to which increased attention is being given, and which are

**Don Republic.**

assuming importance, are *tobacco*, *coffee*, and *cotton*, the last being grown under irrigation in the Monte Cristi district in the north-west. Since coconuts, soya-beans, castor-oil plants and ground-nuts all do well in the country, it is considered that capital and enterprise could profitably be devoted to the *vegetable oil* industry.

The hills and mountains afford suitable grazing grounds for **cattle**, and the existing industry might be greatly extended, since at present dairy products are imported. The forests have been exploited only for the needs of their immediate neighbourhood, but both hardwoods (especially *mahogany*) and softwoods are abundant, and might be floated down the Yaque River to Monte Cristi.

The central Cordillera are rich in *minerals*, which, owing to the inaccessibility of the interior, remain unworked. Copper appears abundant, and there is both gold and silver, besides manganese and iron. There are also vast deposits of rock salt.

**Trade Relations.**—The only railways (153 miles) are in the north of the Republic, running from Sanchez on Samana Bay through Santiago to Puerto Plata. The latter lies about 1,300 miles south of New York, and is the chief shipping port for sugar. The United States, which before the War took rather more than half the exports and supplied two-thirds of the imports, has captured the very considerable German trade, and part of that of France, so that in 1918 over 80 per cent. of the exports were consigned to the States, and over 86 per cent. of the imports came from that country. A proportion of this was, of course, entrepôt trade, much of the Dominican sugar, for example, being re-exported to Canada, while rice and jute sacks from India are credited to the States. In 1919 there was a larger proportion shipped direct to destination. The neighbouring United States' island of Porto Rico has the second place in Dominican trade, since some of the raw sugar is sent there for refining, and refined sugar, provisions, cigars, cigarettes and re-exports are sent from Porto Rico in return. The direct trade of the United Kingdom with the Republic averages only £300,000.

**General Information.**—The State religion in the Dominican Republic is Roman Catholicism. The language spoken is Spanish. The unit of currency is the United States gold dollar. The Royal Bank of Canada and the International Banking Corporation of New York have branches in the principal cities. The metric system is legally adopted, but both English and Spanish weights and measures are in common use. There are cables to New York, Porto Rico and Curaçao, and a Government inter-urban telephone system is well developed. Mails from New York reach the Republic in 7 days. There are British Vice-Consuls at Santo Domingo, Puerto Plata, San Pedro de Macoris and Sanchez.

## THE DON REPUBLIC

**Area and Population.**—The Territory of the Don Cossacks declared itself a Republic in 1918. The area covered is about 63,000 square miles (more than half the size of the British Isles), while the population is about 3½ millions. The Cossacks, who form 40 per cent. of the population, held their

## Don Republic.

land from the Tsar in return for military services, the regiments supplying their own horses and uniform. Only a small proportion, however, actually performed such service. The Cossacks are on the whole better educated than the rest of the Russian peasantry. Although there is a Tatar element in their blood, the people of the Don Territory are mostly Great Russians or Ukrainians; the Jews, who are so strong in many parts of Russia, are here very few indeed, as are the German colonists. The seat of government is Novocherkask, in the south of the Republic, standing about ten miles from



FIG. 55.—DON REPUBLIC.

the right bank of the Don. It has about 70,000 inhabitants, whereas the principal port, Rostov, standing at the mouth of the Don, has 200,000; Taganrog, a port farther west on the shore of the Sea of Azov, has nearly 70,000 people. The chief importance of the Republic lies in the fact that it is part of the great grain-producing region of Russia. No figures are available as to the volume of trade, but the pre-war average for Russia as a whole was about £2 a head—and for the Don region the figure was certainly higher. At present production is disorganised.

### Position, Climate and General Physical Conditions.

—The Don Republic forms part of the South Russian Plain, and embraces



the lower basin of the Don and its chief tributary, the Donetz. It stretches from latitude  $51\frac{1}{2}^{\circ}$  N. (that of London) to latitude  $46\frac{1}{2}^{\circ}$  N. (that of Central France). The climate is, however, much more extreme than that of western Europe: the summers are intensely hot (e.g. as in Spain), the winters as cold as those of Finland. Bitter winds sweep across the country in the winter months, and remove the snow, which does not lie to any great depth. Rain comes in spring and early summer, so that although the total amount is small (under 20 inches) it is all available for the crops. The low rainfall, light soil (the famous Black Earth stretches in a broad band across the country) and the strong winds are all hostile to tree growth, so that in its natural state the region was part of the Russian steppe, i.e. an open grass-land, with very restricted patches of woodland. The severe winter determines that at that season the rivers are frozen over, while the melting of the ice in the spring, coinciding with the spring rains, leads to dangerous floods; hence navigation is intermittent, and the rivers are apt to shift their beds and break through their banks.

**Human and Economic Conditions.**—Apart from those Cossacks who are actually under arms and live in military camps, the population is devoted to agriculture, which is carried on in very primitive fashion: the soil is allowed to lie fallow one year in three, since lack of capital as well as lack of knowledge precludes any adequate system of manuring. Hence production is far below the potential capacity of the soil. The peculiar climate conditions lend themselves (as on the Canadian prairies) to the successful cultivation of cereals, and before the Revolution some 7–8 million acres were under **wheat**, the chief money crop, which was shipped from Taganrog. The acreage under **barley**, partly used for brewing in the towns, and partly sent abroad, was about half that under wheat, while **rye**, the staple food of the peasantry, took the third place. *Hay* is very important, and *potatoes* (used largely for distilling) are also grown in quantity. Minor crops are *sunflowers* and *flax* (for seed), *oats*, *vines* (along the banks of the lower Don and Donetz) and *maize*.

Animal industries are very important, although the days of the wandering herdsman on the steppes are over. Horned **cattle** take the first place and numbered over 2 million before the War; they are used as farm animals, and for beef, while their hides and tallow are exported. **Sheep** are also very numerous ( $1\frac{3}{4}$  millions in 1913), but four-fifths of these are of a coarse-woolled variety. **Horses**, though less numerous than sheep or cattle, are of greater value: they were mainly bred for army purposes. **Pigs** are also reared in large numbers.

The fisheries of the lower Don and of the Sea of Azov (which is only slightly saline) are locally important, and some *caviare* is prepared for export.

The Republic is without mineral resources, with the exception of **coal**. The eastern portion of the rich Donetz coal-basin lies in the Don territory, and produces about 6 million tons under normal conditions, of which about half is anthracite and the rest bituminous. There is no iron ore, but there are some iron-smelting works on the coal-field dealing with Ukrainian ore.

The manufactures of the Republic are very few. Some *agricultural implements* and *machinery* are made at Rostov, and the same town has large *soap* and *candle* works, using local tallow. Brewing, distilling, flour-milling, and tanning are also carried on in Rostov, Taganrog and the other market centres. Taganrog also has iron and steel works. A large annual fair is

## ***Dutch East Indies.***

held at Rostov, and among the peasantry much business is done at the local fairs held all over the country.

**Trade Relations.**—The Don Republic has a somewhat limited range of products, and hence needs many foreign goods and should do a considerable external trade. Grain normally moves to western Europe by sea in large quantities, with lesser consignments of wool, hides, tallow, oil-seeds and oil-cake. Except in so far as they wear sheepskins and woollen homespuns, the inhabitants must import all the textile goods and yarn that they require. Much of this came formerly from other parts of Russia, including the Moscow area and Poland. Timber and sugar, too, both in general demand, come from Central Russia or the neighbouring Ukraine, while tea is imported by way of Siberia. Coal is more than sufficient for local needs, and petroleum can be imported from Batum: broadly speaking the country can be supplied with major necessities without importing from western or central Europe. Iron and steel goods, and some machinery, must, however, be obtained from Germany, Great Britain or the United States, the first-named country formerly largely holding this field. Earthenware, glassware, enamelware, chemicals, paints, paper and the whole category of luxury articles also find a limited market, but the mass of the people live in a very poor style, with but few household goods, and these of home manufacture. Since the railways and rolling stock have been extensively damaged, there must eventually be a demand for material for their renewal.

**General Information.**—Language, currency, weights and measures are at present as in Russia.

## **DUTCH EAST INDIES**

**Area and Population.**—The Dutch East Indies are usually divided into (1) Java and Madura, which are highly developed; and (2) the Outposts, which in the main are only slightly developed. The Outposts include Sumatra, Borneo, Celebes, the Moluccas or Spice Islands, the Lesser Sunda Islands, Banka and Billiton. The whole area is administered by a Governor-General, while the different provinces and districts are governed by subordinate Dutch officials, who have under them a large number of petty native officials.

The total area is 700,000 square miles (about six times the size of the United Kingdom), and the estimated population 47 millions. Of this number 34 millions (72 per cent.) are to be found in Java and Madura, the area of which is only 7 per cent. of that of the total colony. It is from these two densely peopled islands (670 inhabitants to the square mile) that the bulk of the exported produce comes. Sumatra has 5 million people on an area of 159,000 square miles (31 to the square mile); Celebes has 3 million people on 72,000 square miles (43 to the square mile); Dutch Borneo has 1½ millions on 212,000 square miles (rather over 7 to the square mile); the Lesser Sunda Islands (Bali, Lombok, and the Timor Archipelago) have nearly 2½ millions on 21,700 square miles (or 114 to the square mile).

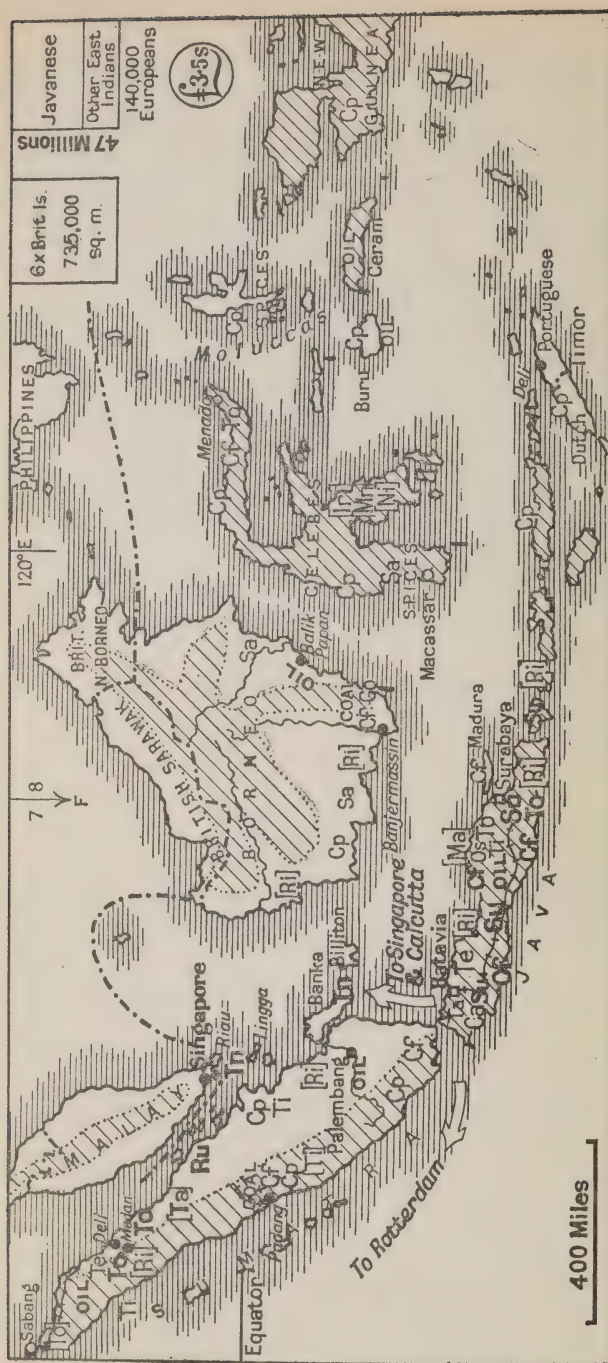


FIG. 56.—DUTCH EAST INDIES.

Thus there are enormous areas of undeveloped land, side by side with a large native population accustomed to agriculture.

The bulk of the people are of Malay race and of Mohammedan faith. They have been brought into contact with the Arab and Chinese civilisations through traders

from these countries. There are about three-quarters of a million Chinese in the Dutch Indies, and some tens of thousands of Arabs, these people acting as petty traders, shopkeepers and hawkers. In the little explored interiors of the large islands (Borneo, Sumatra, Celebes) there are pagan tribes practising a primitive agriculture, and in the



## **Dutch East Indies.**

depths of the forests a few thousands of pygmy hunters. The people of Dutch New Guinea are uncivilised pagans of Papuan race.

European residents (chiefly Dutch) number about 140,000, of whom the majority are resident in Java.

The average total foreign trade in 1917-1919 was £153 millions, of which 66 per cent. was export trade. This works out at £3¼ per head, a figure considerably higher than that for India or Indo-China. The various regulations requiring natives to labour gratuitously one day in seven on Government and private plantations, and to cultivate certain produce for export, have gradually been abolished (the last in 1914). About 5 per cent. of the exported produce is from Government estates. Private estates (European and Chinese) cover about 3½ million acres. The pre-war trade was £98 millions, and there has been an enormous increase in the quantities of goods exported, apart from the rise of prices. The year 1920 saw a reduction in this respect, but, except as regards quinine, the figures were much above those for 1913.

All the large towns are in Java. They include Batavia (235,000 inhabitants) and Surabaya (160,000 inhabitants), both seaports with large European colonies; Surakarta (138,000 inhabitants), an almost entirely Javanese city in the interior; and



FIG. 57.—JAVA.

Samarang (110,000), a second-class seaport. Buitenzorg, situated up in the mountains, is the hot-weather residential town for Europeans.

**Position and Climate.**—The East Indies lie roughly between 10° N. and 10° S. of the Equator, forming a broken land-bridge between south-eastern Asia and north-western Australia. The Equator runs through Sumatra, Borneo, Celebes and the Moluccas, while Sumatra, Java, and the Lesser Sunda Islands form a chain several degrees farther south. The temperatures on the lowlands are uniformly high all through the year, although moderated by sea-breezes, while on the highlands (which are very little known) they are uniformly moderate. The rainfall is abundant, for the islands lie in the track of the monsoon winds as they sweep towards Asia in the northern summer, and towards Australia in the southern summer. Dry seasons are almost everywhere short, and droughts are rare.

**General Physical Conditions.**—The Dutch East Indies are the fragmentary remains of a great foundered land area formerly extending the boundaries of eastern Asia. Consequently they repeat the mountainous character of the mainland, the ranges of Further India, for example, sweeping eastwards through Sumatra, Java, and the Lesser Sunda Islands. The origin of the islands accounts for their extremely long irregular coast lines, and for their great number. Throughout the Sunda Islands there are active and extinct volcanoes, which give rise to very fertile soils, and, except in Borneo, the Indies are liable to earthquake shocks.

**Dutch East Indies.**

The combined heat and moisture ensure a dense forest growth on all the lowlands and on the lower slopes of the mountains, the plants being similar to those of Burma and Malay, and including teak, ironwood, ebony, camphor, bamboo, rattans, besides the valuable coco-nut and sago palms, and many varieties of bananas. Even in Java there are still untouched forest tracts, the home of the elephant, rhinoceros, tapir, ourang-utan and wild pig.

On the higher mountain slopes there are temperate and coniferous forests, while at still greater elevations there are grassy savannahs.

Great navigable rivers radiate from the central mountains of Borneo, and others flow down the gentle north-eastern slopes of the mountains of Sumatra. In Celebes, short, swift rivers, draining from mountain lakes, promise abundant water power.

**Human and Economic Conditions.**—In all but the settled districts, hill rice (unirrigated) and sago form the staple food-stuffs of the people. The Indies are the chief source of supply of **sago**, which is a starch food that may take on a greater importance in view of the world shortage of rice. **Rice** is grown on irrigated fields in Java and Madura, in the neighbouring densely peopled islands of Bali and Lombok, and in northern Sumatra. The configuration of the land and the abundant mountain streams make terrace cultivation common. Besides feeding the local population, the 4 million acres supply some rice for export to the Dutch markets and to China, this being usually rice of high quality, poorer grades being imported in return. Other food-stuffs grown in the first instance for local consumption are **maize** and **tapioca** (each over 1 million acres), but there is now a very large export (80,000–100,000 tons) of the latter.

On the plantations (as apart from the native farms) the most important crop is **sugar**. The total area (European, Chinese and native) is about 400,000 acres, yielding, in 1919, 1·8 million tons. This is half as great as the crop of Cuba, and gives Java the second place in the world's production of (commercial) cane-sugar. The yield is exceptionally high, averaging 4·5 tons per planted acre in 1917, as against rather under 3 tons in Cuba in the same year, although the Cuban crop was an exceptionally large one.

**Coffee** is also a leading plantation crop in Java, in north-east Celebes, and in West Sumatra. The conditions are as in Brazil: steep, well-watered mountain slopes, from which a virgin forest has been cleared, leaving a rich humus soil. The crop is a very fluctuating one, but the average annual yield for the years 1914–17 was 57,000 tons, as against an average of 21,000 tons in 1910–13. Only a small proportion of this is of the fine "Java" quality, which suffers from disease, and the main export is of "robusta."

**Cacao** finds very suitable conditions in western Java, which is very wet. In the equatorial belt violent storms that break off the heavy pods are absent, and there are many well-sheltered valleys in the island. The crop is small, averaging 1,400 tons.

Of greater commercial importance is **tobacco**, including a mediocre quality grown in Java, and a superior quality for cigars grown on estates in the Deli district of Sumatra by the Straits of Malacca. The total quantity is 100,000 tons, about one-twelfth of the American crop. Lombok also grows tobacco.

The wet hill slopes of Java are also suitable for **tea**, of which the output



## Dutch East Indies.

has greatly increased. The figure for 1906 was 26 million lb., and the average for 1915-16-17 was 99 million lb., i.e. about one-quarter the crop of India. The cultivation has extended round Deli (Sumatra).

Java has long supplanted Ceylon in supplying the world's demand for *cinchona* (quinine), the tree finding on the middle slopes of the mountains a climate similar to that of its original habitat in the Equatorial Andes. The 1919 crop was only 17½ million lb., as against a maximum of 21 millions in 1911.

Apart, however, from sugar, these old-established plantation products of the Indies have been cast into the shade by the rapidly developing **rubber** and **oil-seed** industries. The rubber plantations are principally in eastern Sumatra, i.e. on the opposite shore of the Malacca Straits to the noted Malay plantations, and close to Singapore market. The crop for 1920 was estimated as over 42,000 tons, rather less than half that of the Malay States. In 1913 it was only 3,000 tons.

As regards *vegetable oils*, the chief source is the coco-nut, it being estimated that there are over 100 million trees in the Dutch Indies. The normal yield of **copra** for export is about one-quarter million tons, but here, as elsewhere, shipping difficulties led to a greatly diminished export, which has partly been balanced by an increased milling of the oil locally (twenty hydraulic crushing mills in 1919). The natives also grow considerable crops of *ground-nuts*, and minor crops of soy beans, sesame, and castor oil. In addition, the *kapok* tree is cultivated, not only for fibre, but also for seed, from which oil is extracted. Thus the total oil resources of the colony are very considerable, and with scientific cultivation are capable of great expansion. Of great interest is the establishment in Sumatra of *oil palm* plantations which may one day threaten the supremacy of the wild product of West Africa.

The Government Irrigation Department is steadily extending the area served by permanent irrigation works, the water being supplied to the sugar and rice fields. The Government Forestry Department is also very active, the *teak* forests of Central and Eastern Java being scientifically exploited. The ironwood forests of Borneo and Sumatra are but slightly drawn upon.

The abundant *mineral* wealth of the Indies remains largely unexploited, owing to difficulties of transport, since only in Java is there a good road and railway system, and the chief mining areas occur in the Outposts. Exception must be made of **tin**, which has been long mined on the small, and therefore easily accessible, islands of Riau, Banca and Billiton, lying to the east of Sumatra. These islands are a prolongation of the tin-bearing mountains of Malay. The output averages 20,000 tons, about half that of the mainland peninsula. The Banca mines are worked by Government; Chinese labourers are largely employed on the mines as in the plantations.

**Petroleum** has also been steadily obtained during the last ten years, the quantity averaging 15 million barrels, or rather more than 2 per cent. of the world's supply. The Dutch Indies rank next to Russia as a producing area. The chief oil-fields are those of central Java, of Palembang in southern Sumatra, and Langhat in the north of that island, and of Balikpapan on the east coast of Borneo. There are also small fields in Buru and Ceram.

The third mineral of importance is **coal**, the mines behind Padang in



**Dutch East Indies.**

western Sumatra, and behind Banjermassin in south-east Borneo, producing nearly one million tons.

Iron and gold are also mined in Borneo, and it is expected that capital will soon be forthcoming for the development of very valuable and easily worked deposits of iron, manganese and nickel in Celebes, where hydro-electric power can be obtained for the mining and smelting plant. There are also rich copper deposits in Timor, about 50 miles from the capital and port, Koepang.

The *industries* of the Dutch Indies are chiefly concerned with the preparation for the market of the plantation produce. They include sugar and rice milling, cigarette and cigar making, oil-seed crushing, mineral oil refining and tin smelting. Paraffin wax and candles are made on a large scale for export at Balikpapan. In Java, owing to the wide employment of agricultural implements, and the development of motor and rail transport, there are large numbers of foundries and engineering workshops for the execution of repairs, and the manufacture of spare parts. An interesting development is foreshadowed by the concession to a Norwegian of water-power and other facilities for the manufacture of fertilisers from atmospheric nitrogen, near Bandoeng.

**Trade Relations.**—A large proportion of Java sugar is sent to India, and smaller quantities to Farther India, China and the Philippines. The coal is also marketed in the East, besides the mineral oil, which is in a favourable position to compete with the United States product. Formerly, the bulk of the plantation crops, besides the tin, went direct to Holland, to be redistributed to Britain and Europe through the entrepôts of Amsterdam and Rotterdam. The War checked this traffic and turned part of the stream of produce eastwards. The United States buys rubber, tin, copra, oil-seeds, cinchona and tea; Canada also takes tea and rubber; but these countries do not require tobacco, coffee or cacao, of which they have nearer supplies. Australia, with local and Fijian sugar, will not demand this commodity, but it offers a market for coffee, tobacco, cacao, tea, mineral and vegetable oils, besides such minor tropical produce as sago, timber, rattans, pepper and spices.

The colony offers a large market for manufactured goods, nearly the whole of the imports, valued at £70 millions, being of this character. Textiles are the largest item, principally cotton sheetings, shirtings, jeans, and other piece goods, besides haberdashery and apparel. The United Kingdom has the principal share in this trade, Japan only competing in the cheaper articles. Provisions, largely canned goods, biscuits and preserves, come from America and Australia. Iron and steel goods (including galvanised sheets and plates, machine and other tools, cutlery, wire and nails) and machinery came formerly from Germany through Holland, and now come from the United States and Japan, but the United Kingdom might supply this market. Matches, glassware, earthenware, leather goods and paper can all be supplied by Japan, while chemicals and fertilisers come chiefly from America. A very comprehensive railway programme is planned to extend over the next ten years, so that there will be a demand for railway plant, construction material and machinery.

There are already nearly 4,000 miles of railway, of which over 3,000 miles are in Java. Goods must be lightered at Batavia and Soerabaya, but there are better facilities at Tandjong Priok, six miles from the former.

## **Dutch Guiana or Surinam.**

Makassar in Celebes is the best harbour in the Indies, and there is also a good harbour at Sabang off north-west Sumatra, which serves as an entrepôt for the group.

**General Information.**—The Java Bank, under Government administration, issues paper money. The Yokohama Specie Bank, the Hong-Kong and Shanghai Banking Corporation, and the Taiwan (Formosa) Bank, besides Dutch and American banks, have branches at Batavia and Soerabaya. The only legal coins, weights and measures are those of the Netherlands, where the money unit is the guilder, of which normally 12 guilders = £1. The metric system is employed, but a measure in common use is the *pikol* (picul), equal to  $133\frac{1}{3}$  lb. avoirdupois. There is a British Consul-General at Batavia, and Consular representatives at Soerabaya and Samarang in Java, at Makassar in south Celebes, at Medan (near Deli) and Padang in Sumatra, and at Koepang in Timor.

## **DUTCH GUIANA OR SURINAM**

**Area and Population.**—Surinam is a Crown Colony of the Netherlands, under the administration of a Governor. Its area is 46,000 square miles (about  $1\frac{1}{2}$  times that of Scotland), and its population 110,000 (exclusive of uncivilized forest Indians). Over one-third of the inhabitants (36,000) live in the capital and chief port Paramaribo, at the mouth of the river Surinam. The total foreign trade is only about £1 $\frac{1}{4}$  millions annually, and the revenue raised locally has to be supplemented from Holland. The foreign trade of the neighbouring colony of British Guiana is six times as great.<sup>1</sup>

**Position, Climate and General Physical Conditions.**—Surinam lies on the north-east coast of South America, facing the North Atlantic Ocean, and extends from latitude 2° to latitude 6° N. Hence the climate is uniformly hot throughout the year, but in the interior the heat is tempered by the elevation of the land. Heavy tropical rains fall on the coastal belt during the greater part of the year, but the highlands are somewhat drier, and have the principal rains in the summer months. The river Surinam, and the two boundary streams, the Corentyne and Masoni (separating Dutch from British and French Guiana respectively) flow northward from highlands in the south, which are clothed with well-wooded savannah; they then pass through the dense forests of the coastal plain, and enter the sea through great mangrove swamps.

**Human and Economic Conditions.**—The population includes, besides Dutch colonists, negro, aboriginal and Portuguese elements, both pure and mixed. There are also about 31,000 East Indian coolies, forming an important labour supply. Their numbers are, however, quite inadequate for the development of the colony, and in the absence of roads and railways the plantations are limited to belts near the coast and the lower navigable reaches of the rivers and creeks, communication being by water.

**Sugar** is the staple plantation product, and together with rum and

<sup>1</sup> For Map see British Guiana.

**Ecuador.**

molasses forms the most valuable export. The climate is perfectly suited also to *cacao*, to *coffee* and to *bananas*, and the output of all of these tends to increase (cacao about 2,000 tons, coffee 1,500 tons). The shortage of foreign supplies during the War led to an increased cultivation of *maize* and *rice*, which had previously been imported via Amsterdam.

The forests yield *balata*, and in the rivers there is alluvial *gold*, the collection of both being carried on in a small way by independent negroes and Indians. There are great *timber* resources undeveloped, the highland savannahs would support vast herds of cattle, the coast belt would grow coco-nuts; the highlands are also rich in minerals: labour, communications and capital are wanting, but concessions have been granted to an American syndicate. The labour problem is very serious. Chinese coolies will not become colonists, Japanese are unwelcome, British Indians can only be introduced under stringent restrictions, so that Javanese alone remain as a possible supply.

**Trade Relations.**—About half the trade of the colony goes through Demerara, (British Guiana) which has better connection with London and New York. In the latter city, sugar and cacao find a ready market, while balata is sent to London, coffee and bananas to Amsterdam. The imports include, besides all classes of manufactured goods from the United States and Europe, a considerable quantity of food-stuffs—preserved meat and milk, fish, beverages—which cannot be produced locally. These come mainly from North America.

**General Information.**—The coinage, weights and measures are those of Holland, i.e. there is a gold standard, and the metric system is employed. Money is reckoned in *guilders*, of which normally 12 g. = £1. The London County Westminster and Parr's Bank is agent for the Surinam Bank. There is a British Consul at Paramaribo, and a Vice-Consul at Nickerie on the Corentyne River.

## EAST AFRICA, BRITISH

See **British East Africa**, p. 77.

## EAST AFRICA, PORTUGUESE

See **Portuguese East Africa**, p. 395.

## ECUADOR

**Area and Population.**—The Republic of Ecuador has an area of 116,000 square miles approximately (the boundary with Peru is still in dispute) and a population of rather more than 2 millions. The foreign trade reached about £5 millions, before the War, but production and export fell off considerably, and the figure for 1918 was only £4½ millions, little more than £2 a head as compared to over £6 a head in the neighbouring Republic of Peru. In 1919, however, there was a recovery which brought the figure up





**Ecuador.**

Guayaquil. Volcanic peaks, among them Chimborazo, Cotopaxi, and Antisana, 19,000 to 20,000 ft. high, are found in this belt; the third region is cut off by the lofty Andes from the sea-board, and hence is inaccessible and undeveloped, it forms part of the great plain of the Amazon, and is clothed with virgin tropical forest, as are the lower slopes of the Andes both east and west, and the west coastal lowlands. At higher levels there are sub-tropical forests containing cinchona trees, and above these are temperate forests, while in the high valleys and on the plateau there is abundance of natural pasture, with hardy herbs and shrubs. Numerous streams, flowing both towards the Pacific and towards the Atlantic, trench the highlands with deep and often very fertile valleys.

**Human and Economic Conditions.**—The inhabitants of the mountain and plateau regions keep *cattle*, and cultivate potatoes, beans, temperate cereals (wheat, barley) and vegetables for local use. The chief production for export purposes is **cacao**, which is grown in the coastal belt, where the climate, soil and shade conditions and the absence of strong winds ensure success. The output is from 50,000 to 60,000 tons, and the crop is normally marketed in Havre, whence it is partly redistributed to Germany and elsewhere. In 1919 an unusually large proportion came direct to the United Kingdom. Many of the plantations are owned by Germans, and some by British planters. The cacao slump of 1920–21 has led to general financial depression. The secondary products are *coffee* from the mountain slopes, *ivory nuts* (tagua), obtained from a palm growing widely in the wooded areas, and formerly exported to Germany for making buttons, *panama hats* (from the locally-grown toquilla), and *hides*, which are worth severally from £125,000 to £250,000 annually. *Rubber* has been planted, as the output of wild rubber has fallen off. **Tobacco** is grown in considerable quantities for local use, besides some **sugar** and **cotton**, in the coast region and the northern provinces. The cotton is insufficient to supply the local mills, which manufacture a coarse cloth for native wear, and there is some import from Peru. Other manufactures are of chocolate, tobacco, refined sugar, biscuits, matches, and rough boots and shoes.

The forests have valuable resources in the shape of timber, dyewoods and cinchona, but they remain undeveloped, as does the probably very considerable mineral wealth (gold, silver) of the Republic. This is largely due to the absence of means of communication. Some **petroleum** is obtained from Sta. Elena, on the north shore of the Gulf of Guayaquil.

**Trade Relations.**—The only trunk railway in Ecuador runs from Guayaquil up to the plateau summit, and thence northwards through Riobamba to Quito. Branch lines, and the navigable rivers Daule and Guayas serve the plantation regions. A railway under construction from Esmeraldas to Quito will open up a large area of virgin forest. About 60 per cent. of the imports (chiefly textiles and clothing, iron goods and food-stuffs) came in 1918 from the United States, and 20 per cent. from the United Kingdom, while previous to the War the United States supplied only 25 per cent., Germany 20 per cent., and France 6 per cent., the share of the United Kingdom being about 27 per cent. Light construction materials, motor-launches, farm implements, machinery, small tractors and engines, fencing and other necessities for a scattered farming community are likely to be in demand, as well as luxury articles and proprietary goods in

## Egypt.

Guayaquil and Quito. The fact that yellow fever was endemic in the port of Guayaquil was a considerable handicap to the trade of Ecuador, entailing as it did special quarantine regulations, and hence the announcement that it has now (September, 1920) been brought under control and practically stamped out, is of importance. Entry to the port is hampered by a bar.

**General Information.**—The unit of currency is the gold *condor* of 10 *sucre*s, equivalent to the English sovereign. Four local banks issue notes, which form the bulk of the money in actual circulation. The chief foreign banking establishments at Guayaquil are the Commercial Bank of Spanish America and the Mercantile Overseas Corporation. The Banco del Ecuador has agencies in London. The metric system of weights and measures is legally in use, but actually the old Spanish weights and measures (*libra* = 1.014 lb. av., *quintal* = 100 libras) are employed. The language spoken is Spanish, and the prevailing religion (though not established) is Roman Catholic. There is cable connection from Sta. Elena to the other western Republics of South America, and indirectly to North America and thence to Europe. A direct cable to Great Britain is lacking. Mails reach Quito in 30 days. A British Consul-General is stationed at Quito, and a Consul at Guayaquil. The Commercial Secretary attached to the British Legation at Lima (Peru) acts also for Ecuador.

## EGYPT

**Area and Population.**—Egypt is an independent Kingdom since 1921, and is ruled by a King with the assistance of a native Ministry, the British Government having withdrawn from the Protectorate. The avowed policy of Great Britain was to develop the system of self-government in Egypt, and to give to the Egyptians an increasing measure of control in national affairs. The area of Egypt is 350,000 square miles, of which, however, the settled country comprises barely one-thirtieth. The total population is 12½ millions, and has increased by about 1½ millions in each of the decades 1897–1907, and 1907–1917. This population is located in an area only about one-tenth the size of the British Isles, where the density is consequently as great as 1,000 persons per square mile. The average total trade in the years 1918–1920 (including goods in transit) amounted to £138 millions, or about £11 per head, the imports being slightly below the exports. The figure is more than double that for 1914. The population of the large towns has recently shown a great increase. Cairo, the capital, has 800,000 inhabitants. Alexandria, the principal seaport, has nearly half a million. Port Said, at the mouth of the Suez Canal, has 91,000. Among towns of the second rank Tanta, Zagazig, Mansura and Damanhûr, all in Lower Egypt (the delta), have over 40,000, while Asyût in Upper Egypt has 51,000.

The bulk of the people are Moslems, and there is an important Mosque and University of Islam at Cairo; there are besides over three-quarter million native Christians who are members of the ancient Coptic Church, and about 150,000 Christians belonging to various Western Churches (chiefly Roman Catholic). The vast majority of the peasantry are illiterate, but



**Egypt.**

there are about a quarter of a million children receiving education, and there are some 18,000 students at various Higher Colleges. The Egyptian peasants are Hamites, a muscular, brown-skinned race, but there is much Arab and negro admixture, while the trading and ruling classes are Turks, Arabs, Jews and Levantines.

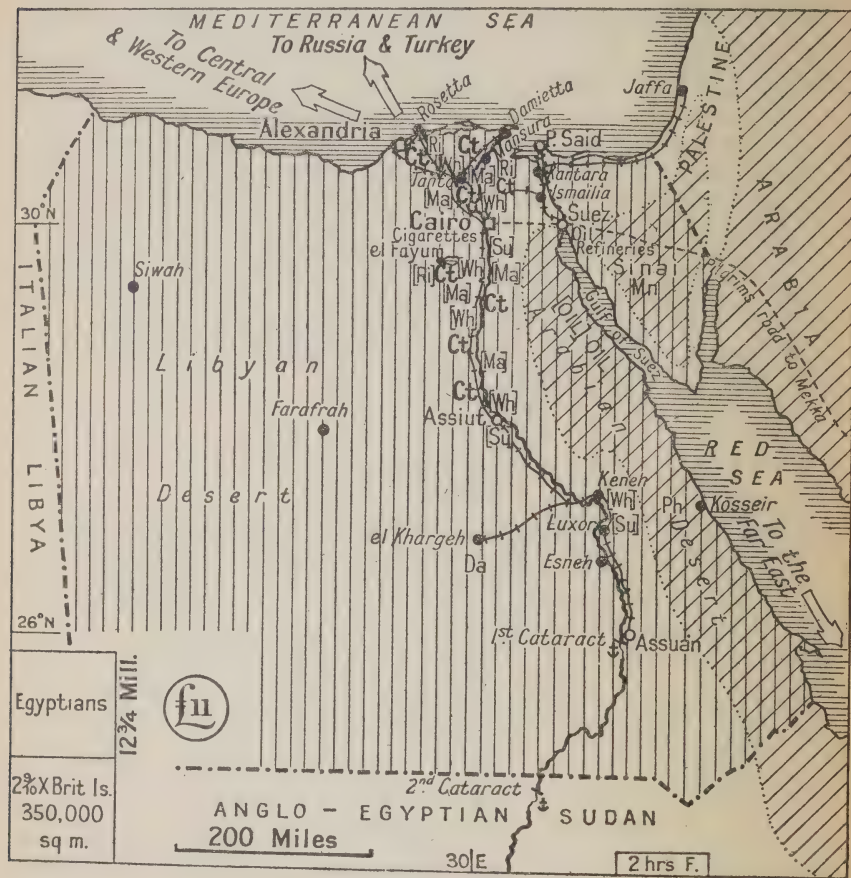


FIG. 59.—EGYPT.

**Position and Climate.**—Egypt lies in North-East Africa, between latitudes  $22^{\circ}$  N. and  $31\frac{1}{2}^{\circ}$  N., i.e. it is almost entirely in the warm temperate zone, and corresponds in latitude to the Ganges Basin. Whereas, however, the latter opens southwards to a tropical sea and has tropical monsoon rains, Egypt has a great land mass to the south and opens northwards to the temperate Mediterranean Sea. Hence it is shut off from the tropical rain belt, and only in winter-time does a part of it—Lower Egypt—come within the sphere of the temperate rain-belt associated with the westerly wind current. Hence two climate regions can be distinguished—

## Egypt.

Lower Egypt with light winter rains, a chilly, damp, mid-winter season, a warm, pleasant, spring and autumn, and a very hot, dry summer; Upper Egypt (above the delta), a rainless region, with a warm, sunny winter and an intensely hot summer. In Lower Egypt the rainfall is supplemented by heavy mists and dews, which to a less extent occur in Upper Egypt. The *khamsein*, a very hot, dry, dust-laden wind from the desert, blows in late spring.

**General Physical Conditions.**—The essential feature of Egypt is the Nile, flowing in a valley of varying width bordered by bluffs, and forming a great triangular delta below Cairo. The delta is covered by a network of irrigation canals and drainage canals, (for much of the land is water-logged), and a series of salt lakes lies behind its seaward margin. The Nile now reaches the sea by two channels only, the Rosetta and Damietta branches. A navigable canal leads to Alexandria. A little to the west of the Nile valley lies the Fayum, a fertile depression watered by the Bahr el Yusuf Canal. Still further west, in the Libyan Desert, a line of depressions in which ground-water is readily obtainable form a series of oases, of which Siwah, Farafrah, Dakhla and El Khargeh are the most important. The valley, delta, Fayum, and oases form the cultivated land of Egypt, all besides being desert. The Libyan Desert is of a low plateau formation, but the Arabian and Nubian Deserts, between the valley and the Red Sea, are very mountainous, and the hillsides are scored by the dry beds of the torrents which flow during the rare, but violent, rainstorms. Of a similar character is the Desert of El Tih in the Sinai peninsula, separated from Egypt proper by the deep cleft of the Gulf of Suez and by the depression utilised for the Suez Canal.

**Human and Economic Conditions.**—Egypt is essentially an agricultural region, but horned cattle (including buffaloes) are reared for draught purposes, and numbered  $1\frac{1}{4}$  millions in 1904, although the number was reduced to 940,000 in 1918 owing to war conditions. There are also large numbers of donkeys and camels used for transport. Over 60 per cent. of the population are cultivators, but small holdings are the rule, over 63 per cent. of the farms being under an acre, while 28 per cent. are between one and five acres. The farms of Lower Egypt, the Fayum, and Upper Egypt, as far south as Deirut (lat.  $27^{\circ} 40'$ ), are under perennial irrigation, and hence double, or even treble, cropping (winter and summer) is possible. The remainder of Upper Egypt is under basin irrigation, i.e. submerged at high Nile (late summer), and hence yields only single crops. The great dam at Assuan, below the first cataract, renders the occurrence of a low Nile a far less economic danger than hitherto, since the deficiency can be made up from this enormous reservoir of water. Below Assuan the chief works are the barrages of Esneh, Assuit and Zifta. The Gebel Aulia dam, which will be built in the Sudan, about thirty miles south of Khartum, will store nearly twice as much water as that at Assuan. It will bring Upper Egypt under perennial cultivation, and will also reduce the danger resulting from an unusually high or a prolonged high Nile, which may involve the slipping of the banks and disastrous floods. The inhabitants are liable to be called out to guard and repair the banks in such an emergency.

The principal, in fact almost the sole, economic crop of Egypt is **cotton**, the area planted varying from 1.4 to 1.8 million acres. The yield is between



**Egypt.**

1,200,000 and 1,600,000 bales of 400 lb., the Sakel variety representing over 70 per cent. of the total, and the Ashmuni over 20 per cent., whereas before the War the Mit Afifi, Sakel and Ashmuni were of almost equal importance. The Government devotes much attention to the improvement of varieties, and to the distribution of good seed on easy terms to the smaller cultivators. Great harm has, however, been done to the crop in the last few years by the pink boll worm, and the regulations framed for combating this pest have so far been only partially successful. The fact that cotton, cotton seed and cotton cake accounted for 93 per cent. of the exports in 1913, and for 90 per cent. in 1920, shows how dangerously dependent Egypt is upon this single staple. Regulations were made during the War whereby the acreage under food-stuffs was increased, but these have now been relaxed. An area sometimes equal to and sometimes exceeding that under cotton is sown with **maize**, which forms a staple article of diet. Almost equally large is the area under **wheat**, but some flour is also imported, for the yield of wheat per acre is very small. Cereal crops of secondary importance (sown on under half a million acres) are *barley*, *millet* and *rice*, the latter confined to the delta. The *sugar* cane is cultivated, and the quantity produced reached over 100,000 tons in 1918, but fell to 79,000 tons in 1919. Some sugar from the East Indies also reaches the Egyptian refineries, and this import is roughly balanced by an export of refined sugar. Previous to the War there was a considerable import of Austrian beet sugar. Other crops are clover, cucumbers, legumes (especially lentils), onions and potatoes, of which all but the first named are also articles of export. As in all countries where much grain is grown, fowls are very numerous, and there is a considerable export of **eggs**, that to Great Britain alone reaching a value of over £1 million (on arrival) in 1917, but with the reappearance of more normal conditions this figure has fallen again.

Under conditions of perennial irrigation, but little silt is deposited on the fields, while the repeated cropping greatly impoverishes the soil, hence the need for manure is increasing. This came formerly from Belgium, but Chile nitrates are now largely imported, and Egypt has also considerable beds of phosphate rock, east of the Nile, although these are not of such good quality as those of Tunis.

The mineral wealth of Egypt is not great. Two small gold mines closed down owing to high operating costs during the War, but **manganese** has been worked in the Sinai peninsula since 1913, and the export in 1918 was nearly 10,000 tons. Of greatest importance are the **oil**-fields, which lie along the western border of the Gulf of Suez. The oil is shipped by tank steamer to the refineries at Suez, which have latterly also dealt with crude oils from the East Indies. The bulk of the output is of fuel oil, in which Egypt is now more than self-supplying, so that Suez has become an important bunkering station, and tanks are also to be erected at Port Said. With regard to petrol and kerosene, the local supplies are inadequate, and of these there is a considerable import, valued at £2½ millions in 1919. Active steps are being taken to open up new sections of the oil-producing region. The maximum output from the Suez refineries was 289,000 tons of oil in 1918, equivalent to about 2 million barrels. There was a decided falling off in 1920, due mainly to lack of machinery on the oil-fields.

The only manufacture of importance in Egypt is that of *cigarettes* in Cairo. For this industry tobacco was normally obtained from Greece,



## Egypt.

Turkey and Russia, the quantity being some 20 million lb. in 1913. The loss of the Russian and Turkish supplies led to a rapid increase of imports from the Far East, notably from China, British India and Japan. The export of cigarettes in 1919 was  $1\frac{1}{4}$  million lb., so that it is evident that there is a large local consumption. There are some thousands of native cotton and silk hand-looms in Cairo and Damietta.

**Trade Relations.**—The bulk of the trade of Egypt passes through Alexandria, but the need during the last six years to import from the East such commodities as sugar, oil, tobacco, flour, which had come formerly from Europe (Austria, Rumania, Turkey, Russia), led to an increase in the trade via Port Said. The United Kingdom takes from 60 per cent. to 70 per cent. of the Egyptian cotton crop, but the United States appeared as a large buyer during the early war years, and the other cotton-manufacturing countries—France, Switzerland and Italy—also purchase small quantities, while shipments will doubtless eventually be resumed to Germany, Austria and Russia, which were purchasers up to 1914. The United States makes purchases of Egyptian goat-skins, and supplies some petroleum and cotton goods. Japan sends matches and glassware, besides some cotton goods, and the latter are also supplied by France, Italy and Switzerland. The main supply is, however, from the United Kingdom, which in 1918 sent cottons to the value of £13 $\frac{3}{4}$  millions out of a total worth £22 millions imported into Egypt during that year. The result was, however, a glut in the market, with a consequent decrease in the trade in 1919. Egypt has, however, a considerable entrepôt trade with Arabia, Palestine, Syria, Malta and the Sudan, so that these stocks should be cleared without loss in course of time. The country is deficient in meat, and large numbers of slaughter animals (cattle, sheep and goats) come from the Sudan, besides frozen meat from Australia. Timber and coal, too, are necessarily imported, the latter from the United Kingdom, the former normally from Austria. Woollen goods come from the United Kingdom, which also supplies a considerable proportion of the demand for iron and steel goods, the former share of Belgium and Germany in this trade having fallen to the United States. In 1920 Germany traded with Egypt to the extent of rather over £1 million in each direction.

British ships carry more than 50 per cent. of Egyptian trade, while 20 per cent. of the arrivals and departures from Alexandria are under the Italian flag. Small Greek vessels engage in the Levantine trade. Of the 17 $\frac{1}{2}$  millions tonnage passing through the Suez Canal in 1920, 62 per cent. was British, 9 per cent. Japanese, 8 per cent. Dutch, and 4 $\frac{1}{2}$  per cent. French. With the building of the swing bridge over the Kantara during the War, Cairo was linked up with the Palestine railways.

Including 720 miles of agricultural light railways, there are 3,000 miles of railways in Egypt, mainly State owned, on which there is a heavy traffic. The Nile is also an important route-way, with a regular service of Government steamers, besides numerous native craft.

**General Information.**—The metric system is commonly employed in Government reports relating to Egypt. The following units are also in general use: 1 feddan = 1.038 acres; 1 quantar (or 100 rotls or 36 okes) = 99.05 lb.; 1 ardeb = 43 $\frac{1}{2}$  gallons or 5.4 bushels. The unit of currency is the gold Egyptian pound (£E) of 100 piastres, equivalent

**Eritrea.**

to £1 0s. 6½*d.* in pounds sterling. The piastre (P.T.) is worth 2½*d.* English sovereigns are legal tender at the rate of 97½ piastres. The Indian rupee is also temporarily legal tender. There are besides in circulation bank-notes of the National Bank of Egypt, and Government currency notes. Besides the National Bank, there is an Agricultural Bank, making loans to the fellahin, while the ordinary exchange banks include branches of the Anglo-Egyptian Bank, the Bank of British West Africa, the Imperial Ottoman Bank, and the leading French, Italian, Greek, Belgian and Dutch banks. Mails reach Egypt from London in five days. The language most commonly spoken is Arabic, but English is taught at all institutions for Higher Education. There is a British Consul-General at Alexandria, Consuls at Cairo and Port Said, Vice-Consuls at Suez, and Zagazig, and also a British Commercial Agent at Alexandria.

**EGYPTIAN SUDAN**

See **Anglo-Egyptian Sudan**, p. 13.

**ELLICE, GILBERT AND, ISLANDS**

See **Gilbert and Ellice Islands**, p. 252.

**ENGLAND**

See **British Isles**, p. 84.

**ERITREA**

**Area and Population.**—The Italian Colony of Eritrea is administered by a Governor. Its total area is nearly 46,000 square miles, and population 450,000. Apart from the military, there are only three thousand Europeans, chiefly at Asmara, the capital, and Massawah, the chief seaport. The trade is increasing, and already amounts to over £4 millions, imports being considerably in excess of exports, as developments are in progress.<sup>1</sup>

**Position and General Conditions.**—Eritrea lies along the south-western shore of the Red Sea, from latitude 18° N. to latitude 12½° N. (at the straits of Bab-el-Mandeb). It is bounded inland by the Egyptian Sudan and Abyssinia, and includes also the Dahlak Archipelago. The coast of Eritrea is one of the hottest places in the world, and as it lies in the lee of the Abyssinian highlands it is also very dry. A part of these highlands are included in the colony, and the centre of administration is placed inland at Asmara, where the elevation renders the climate more tolerable. The eastern and northern slopes of the highlands are clothed with pasture, and the inhabitants are pastoral nomads, rearing camels, cattle, sheep and goats,

<sup>1</sup> For Map see Abyssinia.

## **Esthonia.**

whose **skins** and **hides** are articles of commerce. On the summits of the highlands there is a considerable rainfall, and in summer the rivers bring down abundant water for irrigation purposes, and hence such crops as cotton might be grown. The well-watered uplands are forested, and **palm-nuts**, similar to the tagua or ivory nuts of South America, are collected for export. There are **pearl** fisheries in the Red Sea, potash deposits on the Abyssinian frontier, and gold mines near Asmara. Salt is exported and a little potash, which is brought by light railway to the specially constructed port of Mersa Fatimari.

The railway from Massawah to Asmara is being extended inland. Trade is chiefly with Italy, and Massawah serves also as the principal port for Northern Abyssinia.

**General Information.**—The unit of currency is the *lire*. Eritrean dollars (= 5 lire) and sub-multiples have been minted. The only banking establishment is the Societa Coloniale Italiana. There is wireless connection with Italy, and with Italian Somaliland.

## **ESTHONIA**

**Area and Population.**—The Republic of Esthonia, including the islands of Ösel and Dagö, has an area of about 23,000 square miles (rather less than one-fifth the British Isles) and a population of  $1\frac{3}{4}$  millions, which is almost entirely Esthonian, so that the racial difficulties common to so many of the new States are here absent. The Esthonians are a people allied racially to the Finns, i.e. they come of Mongolian stock and are quite distinct from the Slavs, Teutons and Letts. Like the Finns and Scandinavians, the Esthonians are well educated, the proportion of illiterates being very low, and this fact should have a beneficial effect on the prosperity of the country now that it is independent. The former Slav University of Dorpat has been reopened as an Esthonian centre of learning. The capital and chief seaport is Reval (Tallinn) on the Gulf of Finland, with over 160,000 inhabitants, i.e. nearly 10 per cent. of the total population. Its importance is more than local, since it was a leading seaport of North Russia, a fact that suggests that the trade of the new Republic will be of greater volume and value than the actual population of the State might warrant: £12 *per capita*, or over £20 millions is probably a very conservative estimate. Apart from Reval, the towns are small; Dorpat (Tartu) has 60,000 inhabitants (i.e. is about as large as Oxford), Narva, a factory town on the Russian frontier, has 35,000, and Pernau, the second port, has 23,000. The Esthonians, like most Baltic peoples, are Protestants.

**Position and General Physical Conditions.**—Esthonia lies on the East Baltic, on the south shore of the Gulf of Finland. It marches eastward with Soviet Russia and southward with the Republic of Latvia. Owing to the high latitude ( $58^{\circ}$  N.– $59\frac{1}{2}^{\circ}$  N.) the winters are long and rather severe, while the summers are cool and on the whole rainy, but the annual rainfall is less than that of the driest districts in the British Isles. The proximity of the Baltic Sea, however, keeps the air moist, even when no rain falls, and also retards the onset of winter. Esthonia lies, however, in a path commonly followed by storms, and the winter weather



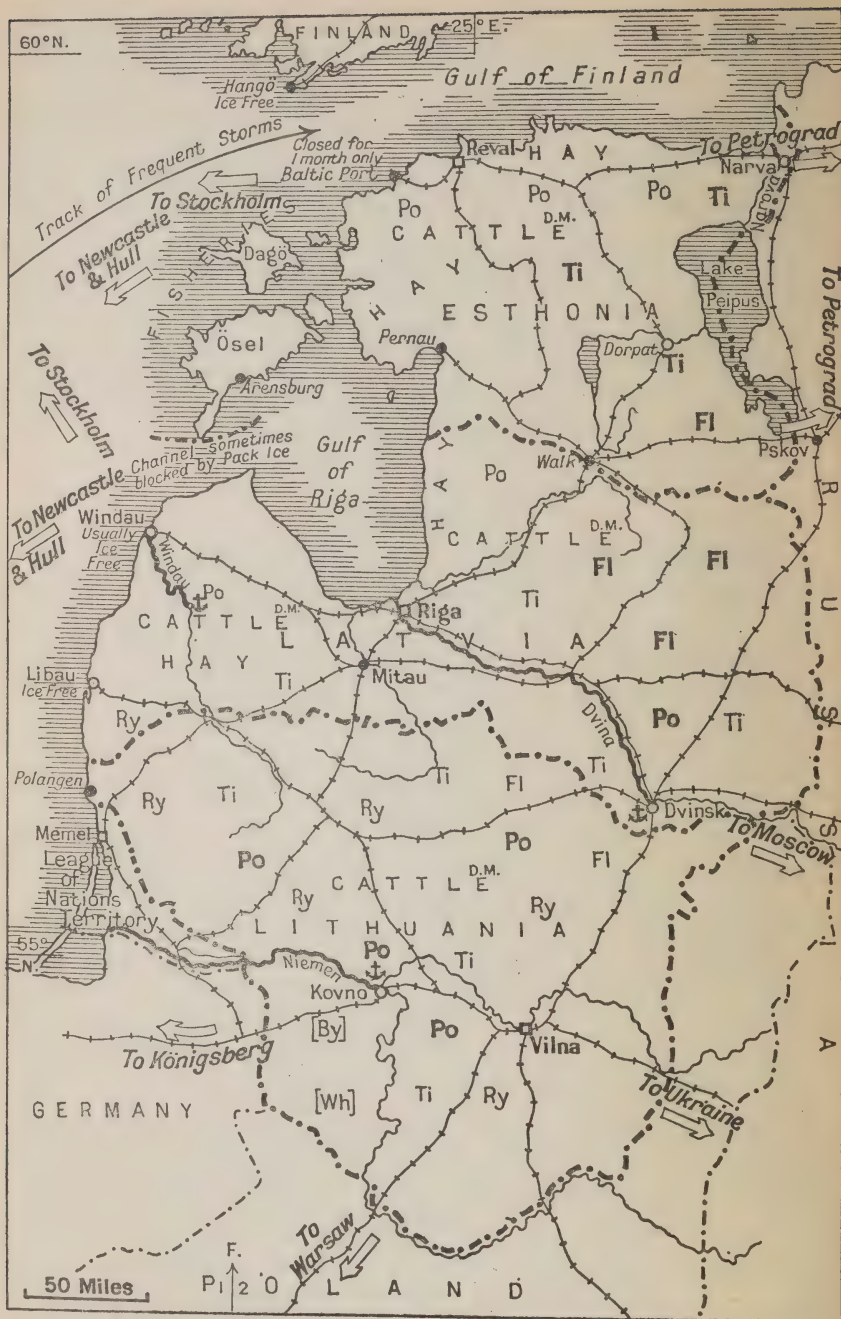


FIG. 60.—ESTHONIA, LATVIA AND LITHUANIA.

## **Esthonia.**

is very rough. The whole country is a slightly elevated plain, a steep cliff, deeply indented, forming the margin of the Gulf of Finland. The soil is of glacial origin, and consists partly of pure sand (uncultivable), partly of sand and clay, mixed in varying proportions, and partly of pure clay, which is often water-logged. Hence there is much heath, bog and marsh land, while there are many lakes, of which one, Lake Peipus, covers 1,300 square miles. This lake forms part of the eastern frontier, and is drained northwards by the chief river, the Narova. Although the areas covered with fertile mixed soils have been largely cleared for agriculture, one-fifth of the land surface is still clothed with forests of softwoods (conifers), which are one of the leading economic assets of the country.

**Human and Economic Conditions.**—The large landed estates have been cut up and assigned to the peasantry. Owing to the uncertain climate, the proportion of land under cereals (rye and barley) is very small, but the soil is excellently suited to **potatoes**, which form a staple food-stuff, and are also used for distilling alcohol. The moist atmosphere is favourable to grass, and a large proportion of the farm-land consists of meadow or permanent pasture, hence the animal industries are important, and as in Finland, *dairying* is actively pursued, butter, meat, eggs and bacon being important articles of commerce. The forests afford not only **timber** for export, but raw material for the **pulp** industry, which is centred at Pernau. *Matches* and *paper* are made at Reval, which also manufactures *leather* from local hides and skins, and has large *engineering* shops and wagon works. *Furniture* is made at Dorpat, and *cotton textiles* are of considerable local importance at Narva, where the Narova river supplies power to the mills.

Large desposits of *oil-shale* occur on the margin of the Gulf of Finland, and are being actively exploited.

**Trade Relations.**—The timber and food products of Esthonia (including potato-spirit) find a natural market in the United Kingdom and in Germany, and these countries are normally the chief competitors in supplying the varied range of manufactured goods that a non-manufacturing country demands. They also compete as intermediaries for the supply of raw materials such as cotton and rubber, food-stuffs such as salt, herrings, and tropical groceries (coffee, cacao, rice, etc.), while Britain also supplies coal and coke, and Germany supplies dyes, chemicals and chemical manures. Sweden appears as a third rival, as she is in a position to supply such important classes of goods as electrical accessories, dairying machinery and metals. Supplies of wheat and maize come normally from other parts of Russia. Reval is practically the only port of entry to be considered, although it is ice-blocked in winter, and is then partly relieved by Baltic Port, which lies farther west, and hence is kept open longer. It has, however, very restricted accommodation, and the same is true of Pernau on the Gulf of Riga.

**General Information.**—A common Baltic currency will probably be adopted by Esthonia and the neighbouring States, and the metric system will gradually be brought into use. Esthonia has entered into fiscal union with Latvia. The *pood* of 36 lb. is a measure of weight in common use. The Esthonian and Finnish paper marks make up the bulk of the present currency. There is a British Consul at Reval, and a Vice-Consul at Pernau.

## FALKLAND ISLANDS

**Area and Population.**—The Falkland Islands form a Crown Colony administered by a Governor, and cover an area of 6,500 square miles, or with the dependency of South Georgia, 7,500 square miles (about the size of Wales). Other dependencies are the uninhabited Sandwich Islands, South Shetlands and South Orkneys and Graham's Land, all lying in the Southern Ocean. The chief town and seaport, Port Stanley, standing on the east coast of East Falkland, has under a thousand inhabitants. It is the only British coaling station on the Cape Horn route between South Africa and New Zealand. The total population of the islands is only 3,500, and in relation to this number the foreign trade is great, averaging about £3 millions, of which £2 millions represent exports.<sup>1</sup>

**Position, Climate and General Physical Conditions.**—The Falklands lie 300 miles east of Magellan Straits, in the track of the stormy westerly winds, their latitude being 52° S. (the distance from the Equator of Southern Ireland). The climate is not unlike that of the Hebrides, mild and rainy in summer, bleak and stormy, but not excessively cold, in winter. The exposed situation prevents tree-growth, and the islands are clothed with natural pasture. The warm winds and ocean currents keep the shores free from ice, but South Georgia and the Sandwich Group lie in waters across which the gigantic Antarctic icebergs drift in spring, while the South Shetlands, South Orkneys and Graham's Land are surrounded by pack-ice for a greater or less period of the year.

**Human and Economic Conditions.**—The inhabitants of the Falkland Islands and of the whaling settlement on South Georgia are mainly of British descent. The staple industry of the islanders is **sheep-rearing**, so that they live on widely scattered farms, necessitating the employment of itinerant school-teachers. Of late years, however, the value of the products of the **whaling** industry has outstripped that of the pastoral work. In the open waters round South Georgia whaling goes on all the year round; on South Shetlands (latitude 62° S.) there is a six months' season (November–April), while on the South Orkneys the waters are only ice-free for shorter periods. The value of the catch averages £1½ millions, and there is also a small seal-fishery (value £20,000 to £30,000).

There are no manufacturing industries in the Falklands, and many of the more enterprising islanders have emigrated to the sheep lands of Chile and Argentina on the opposite mainland.

**Trade Relations.**—The bulk of the wool, hides, and tallow, valued at about £¼ million, besides the whale produce, is exported to the United Kingdom, which maintains regular sailings to Port Stanley. In return, British manufactured goods of all classes, besides bunker coal (peat is used for domestic purposes), are imported, but food-stuffs, such as grain, sugar, coffee, cocoa, and other groceries, of which there is no home supply, are obtained mainly from South America. Sheep for breeding purposes are sent to the mainland pastoral region.

**General Information.**—The currency, weights and measures are the same as in Great Britain. There is no Bank on the islands. The

<sup>1</sup> For Map see Argentina.



## **Fernando Po.**

English mails take about four weeks in transit. There is cable communication with Monte Video. The Colonial Secretary acts as Imperial Trade Correspondent.

## **FARÖE**

**General Conditions.**—The Faröe or Sheep Islands are a group belonging to Denmark (of which they rank as a county), and lying in the North Sea about 200 miles north-west of the Shetlands. The group consists of a large number of rocky islands with deeply indented coasts, Strömö and Syderö being the chief. They cover 540 square miles, and support a population of 20,000. The climate is bleak and stormy, and the islands are treeless. The principal crops are *hay* and *potatoes*, and the chief domestic animals are *ponies* and *sheep*. The wool of the latter is woven into homespun or is exported. A small quantity of hand-knitted goods is also exported. The majority of adult males are, however, fishermen or sailors, and dried fish (principally *cod*) and fish oil are leading products. There is also some *whaling*, and some 2,000 tons of fertiliser from whale carcasses are exported. The islands stand on a submarine ridge which forms an important fishing-ground, visited also by British and other fleets. Most of the necessities of life, including breadstuffs, drapery, hardware and timber, are imported via Copenhagen or Leith. The British Bank of Northern Commerce does business in the Faröes. The money, weights and measures are as in Denmark, and the Danish language is spoken. There is a British Consul at Thorshavn on Strömö, which is the chief harbour and seat of government.

## **FERNANDO PO, SPANISH GUINEA AND RIO DE ORO**

**Area, Population and General Conditions.**—The Spanish Colony and Protectorate of Rio de Oro has an area of 109,000 square miles and a population of under 500, it lies on the western margin of the Sahara Desert, to the South of Morocco, and is of no commercial importance. Fernando Po, with Annobon, Corisco, Great Elobey and Little Elobey, are a group of volcanic islands in the Gulf of Guinea, covering 800 square miles and having a population of 24,000, including about 300 Europeans. The capital and seaport is Santa Isabel, on the north coast of Fernando Po, opposite Victoria, in Cameroons Territory. Lying within 4° of the Equator, the islands are uniformly hot and moist, while the soil is exceedingly fertile. Hence there is a luxuriant growth of tropical vegetation, and such plantation products as *cacao* and coffee do well. Spanish Guinea (Rio Muni), on the mainland, covers nearly 10,000 square miles, and has a negro population of 200,000, besides about 130 white traders. The country is typically equatorial, with very hot, unhealthy coastal lowlands, clothed with dense forest, and somewhat more open country at higher elevations. Forest products, such as wild *rubber*, *wax*, and *palm*

**Finland.**

*oil* are collected. The trade of these Colonies is with Spain, via Santa Isabel, and amounts to barely £ $\frac{1}{2}$  million, the imports including apparel and provisions for the Europeans, besides spirits, cheap cottons, and fancy articles for native trade. The Governor-General of the Colonies resides at Santa Isabel. Currency, weights and measures are as in Spain.

## FINLAND (REPUBLIC OF)

**Area and Population.**—Finland has been a Republic since 1919. The total area of the country is 125,700 square miles (rather larger than the British Isles), and the population is  $3\frac{1}{2}$  millions: the numbers increase very slowly, for the birth-rate is low. The pre-war foreign trade was about £33 $\frac{1}{2}$  millions, or £10 a head, while the figure for 1919 was £126 millions, if the Finnish mark is taken at par, but actually the value was £32 millions. The imports are normally in excess of the exports, and in 1919 the proportion was as three to one, the discrepancy being increased by the adverse exchange. During 1920, however, conditions improved, and accumulated stocks of Finnish goods were marketed, the imports being worth £34 millions and the exports £27 millions at the current rate of exchange. In 1921, in spite of falling prices, this total and proportion were maintained. The bulk of the population of Finland is rural, and the only large town is Helsingfors (Helsinki), the capital, with 187,500 people. Abö, an important seaport, has 56,000, while Tammerfors, a leading industrial centre, has 46,000. The country people are predominantly Finnish (a race of Mongolian extraction), but round the coast and in the towns there is a considerable Swedish element, and hence the Swedish as well as the Finnish language is commonly used and understood in the commercial world. A strong anti-Swedish feeling exists, however, among Finns, which must be allowed for. There are, besides, numbers of semi-nomadic Lapps in the interior and in the north, who usually understand Finnish in addition to their own language. The religion of both Finns and Swedes is Lutheran. The interior and north are very scantily peopled, the majority of the inhabitants living within sixty miles of the seaboard.

**Position and Climate.**—Finland stretches from latitude 60° N. to within the Arctic Circle, and from the Gulf of Finland to the Arctic Ocean. To the west lies the Gulf of Bothnia, the northern arm of the Baltic Sea, while to the east lies Continental Russia. The climate is necessarily severe, the winter cold increasing with distance from the sea, but as the Baltic itself becomes frozen in the winter months, it soon ceases to have any modifying effect on the climate. The summers, though short, are warm, and owing to the high latitude the hours of daylight are very prolonged during this season, so that crops come to maturity in a comparatively brief season. The rainfall is heaviest in late summer and autumn, but, generally speaking, it is rarely either in excess or defect. In winter the ground is always covered with snow. By May the seas are clear of ice, and commercial activity can be renewed. At Hangö, a small port at the extreme south-west of the country, where the winter is least severe, a channel is always kept open by Government ice-breakers, and this is usually the case at Abö, while at Helsingfors the open season is prolonged by these

## Finland.



FIG. 61.—FINLAND,



**Finland.**

means, although this harbour is closed during January, February and March. The tideless character of the Baltic is an advantage, since docks are unnecessary.

**General Physical Conditions.**—Finland consists of a low plateau of very old crystalline rocks (largely granite), studded with innumerable lakes, these forming a useful means of internal communication. The rivers drop sharply from the edge of the plateau to the coast plain, and hence there is abundance of water-power (the famous Imatra Falls are owned by the State). The interruption of the flow of water in winter makes the employment of this power less easy than would otherwise be the case, but very important schemes are under consideration. In 1921 money was allocated to preliminary work on the Imatra Scheme, which will take eight years to complete. From these falls 150,000 H.P. could be developed.

The irregular pitting of the plateau surface, leading to the formation of lakes, is matched by the irregularity of the coast, which is deeply indented and bordered by numberless small islands or skerries. Hence the harbours are safe and sheltered in all weathers. The soils are of glacial origin and consist of gravels and clays, and as they are often water-logged, there is much peat-bog and wet moor in the country. The vegetation is, however, chiefly of coniferous forest (larch, pine, fir), which constitutes the most considerable source of wealth in Finland. Birch, willow and alder are also abundant. The State Forests cover 30 million acres.

**Human and Economic Conditions.**—The high latitude and cold climate make it impossible for agriculture to assume importance in Finland. Such hardy cereals as rye and oats, together with green crops, roots (including beets) and potatoes are the staples of the farmer, consequently attention is being focussed on stock-rearing, and particularly on the raising of dairy-cattle. **Butter** is an important article of export, especially from the south and south-west of the country. Before the War some 11,000 tons were sent abroad annually, of which the bulk was from Co-operative Creameries. Over half the quantity came to the British Isles. The number of horned cattle is over a million. As has been mentioned, however, the *forest* industries are the most valuable, and the lakes and rivers make it possible to float timber cheaply down to the saw-mills. Canals have also been constructed, e.g. the Saima Canal behind Viborg. Sawn **timber**, pit-props, *paper pulp*, cardboard and *paper*, are produced in bulk, while there is also a (declining) output of *pitch* and *tar*, a growing *match* industry, and a future industry of importance in the distillation of *wood alcohol*. *Bobbins* are made from birch-wood, and the export is considerable. Water-power is widely employed in the timber industries. Mining is unimportant, but some **iron** is raised, and smelted. This, together with imported iron, is worked at Tammerfors and at Vasa, which have *iron and steel* and machinery and engineering works on a considerable scale. Tammerfors is also the centre of the Finnish *textile* industry, carried on with imported cotton. This town, like Helsingfors, is largely built of local **granite**, which is of good quality and forms an article of export. Apart from the saw and pulp mills, paper and match factories, the only other industry of note is that of **leather** working at Uleaborg, a port near the head of the Gulf of Bothnia. Here there are tanneries and boot factories of some reputation. The fact that the long, dark winters confine the country people to their homes during

## **Fiji.**

that season leads to the development of domestic handicrafts, so that hand-spinning and weaving, furniture-making and wood-work, are important cottage industries.

**Trade Relations.**—Finland offers a market for food-stuffs principally cereals and groceries (sugar, coffee, cocoa, etc.); for every variety of manufactured article; for chemicals; and also for raw materials, such as cotton, for semi-manufactures such as pig-iron, and for coal. Many of these products (all those from distant parts) do not come direct from the country of origin, Finland being served via such entrepôts as Newcastle and Hull, Antwerp and Rotterdam, Stockholm, and (except during the War) Hamburg and Stettin. The natural markets for Finnish timber and dairy products are the industrial centres of Western Europe, including Great Britain and Germany, besides Denmark (for wood products), but again much of the trade is indirect, and is handled by Swedish merchants dealing in the same classes of goods. There is, however, great scope for the establishment of a considerable direct trade between Finland and Britain, although at present the state of the exchange makes it cheaper for Finland to buy in Germany. Hence the figures for the first nine months of 1921 show a falling off in trade with Britain, and a marked increase of trade with Germany. Large sums of money have been voted for harbour improvements, and in particular the capacity of the free harbour of Hangö, which is nearest to Western Europe and is accessible all the winter, is to be greatly enlarged.

**General Information.**—The unit of currency is the Finnish *mark* or *franc*, normally worth 25 F.mk. to the pound sterling. At present there is a very large quantity of paper money in circulation. The metric system of weights and measures is universally employed. The British Bank of Northern Commerce does business in Helsingfors and Abö. Mails reach Finland in 3 to 4 days. There is a British Consul at Helsingfors and there are Vice-Consuls at Abö, Hangö, Viborg, Tammerfors, Uleaborg and other towns.

## **FIJI**

**Area and Population.**—The Colony of Fiji is administered by a Governor, who is also High Commissioner and Consul-General for the Western Pacific. Fiji consists of over 200 islands (many uninhabited), of which Viti Levu and Vanua Levu are the largest. It covers an area of just over 7,000 square miles (cf. Hawaii, 6,500 square miles), and has a population of 164,000 (cf. Hawaii, 250,000). Of this total 55 per cent. are Fijians, 37 per cent. Indians, the remaining 8 per cent. including 4,500 Europeans, some thousands of Polynesians from other groups and a few hundred Chinese. The Europeans include over 100 missionaries and teachers working among the natives. The population is increasing, the surplus of births over deaths in 1917 being over 2,000, but in 1918 the Fijians suffered heavily through the influenza epidemic.

The density of population is under twenty-four to the square mile, and there is abundance of land awaiting development. Trade has greatly increased in value during the last few years, averaging £3 millions in



1916-19. Of the total, £2 millions represented exports. This works out at £18 a head, a figure which might easily be surpassed, as shown by comparison with other tropical dependencies: American Hawaii, £100; Malaya, £78; British Guiana, £25. Hawaii

has, however, a much larger proportion of efficient labourers, including over 50 per cent. Japanese, whereas the indigenous Polynesian peoples contribute comparatively little to the prosperity of their respective countries. So far no substitute has been found for the indenture system, which has been discontinued in Fiji. Hence the labour problem is serious.

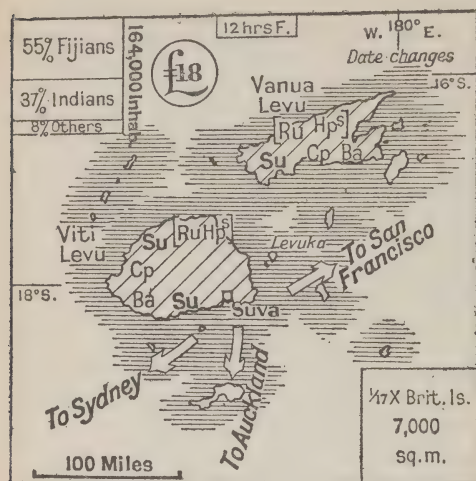


FIG. 62.—FIJI ISLANDS.

the soil is very fertile, while the climate is excellent. Malaria is absent, as in all remote oceanic islands. The temperature is uniformly high, without being excessive, while the south-east trade winds bring sufficient rainfall to ensure a luxuriant tropical vegetation.

**Human and Economic Conditions.**—The Fijians cultivate yams, sweet potatoes, bread-fruit, coco-nuts and bananas for their own use, besides rearing pigs, poultry, cattle and goats. They sell their surplus *copra* and *bananas* to European and Oriental traders, buying in return such articles as cotton singlets, chemises and towels, knives, tools and kerosene, but owing to their simple standard of life there is little inducement for them to engage in more productive work either on their own holdings or on the plantations.

The staple industry of Fiji is **sugar** production, labour being supplied by the Indians and other immigrants. The area has increased by 50 per cent. since 1912, and covers 68,500 acres, producing approximately 100,000 tons of sugar—one-sixth the output of Hawaii. In addition to the large European plantations, sugar is grown on many small holdings taken up by Indians, who settle in the country after their indentures have expired. The Colonial Sugar Refining Company, an Australian concern, has large interests in Fijian sugar.

Second in importance to the sugar estates are the **coco-nut** plantations, covering 45,800 acres (an increase of 40 per cent. since 1912) with approximately 2,300,000 trees. The trees come into regular bearing in about nine years, and as cattle are grazed on the plantations to keep them clear of weeds, the number of *cattle* has also increased to over 60,000.

Shipping difficulties and high prices led to an increase in the locally



## Fiji.

grown supplies of food-stuffs for the labourers, notably *rice*, beans, yams and dhal, but the islands are not yet self-sufficing in this respect.

The undeveloped potentialities of Fiji are indicated by the success of the few existing plantations of *rubber*, tea and sisal hemp. Probably, however, the most immediate line of development will be the organisation of the *fruit* industry, especially *bananas* and *pine-apples*, for which New Zealand and Australia offer a market.

The *industries* are concerned with the working up of the plantation products—thus there are sugar-mills, rice-mills, soap and fibre mills to deal with coco-nuts and coir, besides saw-mills and boat-building yards, since inter-communication is necessarily largely by small sailing vessels and the Fijians are traditionally skilful boat-builders, sailors and fishermen.

The great success of the oil-crushing mills of the Philippines suggests that a coco-nut oil industry might with advantage be developed in Fiji, since in addition to the local supplies of copra there are large quantities available from neighbouring island groups, Samoa, Tonga, New Hebrides, etc.

**Trade Relations.**—Practically all the trade of Fiji is carried on through the chief port, Suva, which stands on the southern shore of Viti Levu. Suva is a coaling station, with wharfage for the largest vessels, and is a regular port of call for vessels sailing between western North America (Vancouver and San Francisco) and Australasia (Auckland and Sydney). It serves to some extent as an entrepôt for neighbouring groups. Levuka and Lautoka are secondary ports of entry.

The sugar export in 1917 was worth £1½ millions, of which nearly two-thirds went to New Zealand, about half as much to Australia (which has home supplies) and a little to Canada. In 1919 New Zealand and Canada were the chief purchasers. Copra (£670,000 in 1919) goes largely to San Francisco, instead of to London or Hamburg as in former years, while a proportion is taken by the soap-works of Australia. Green fruit (£170,000 in 1917), which stands third on the export list, goes to Australasia.

The import trade is more widely distributed, since it includes various food-stuffs and provisions both for the coolie and European populations, besides drapery, hardware, machinery, cigarettes and tobacco and oil. Australia supplies about 50 per cent., including biscuits, flour and breadstuffs, meat and timber, besides some re-exported goods of British manufacture, e.g. drapery and hardware. New Zealand also supplies food-stuffs, including butter and cheese. Goods from the United States make up 8 per cent. of the total, including kerosene and petrol, tobacco and cigarettes, besides automobiles, agricultural machinery, sewing machines and typewriters. Canada and Australia also supply some agricultural machinery, but the United Kingdom holds the first place in supplying sugar-making plant, drapery, hardware, galvanised iron and similar manufactured articles. Japan has obtained a foothold, especially for cottons and cheap domestic wares formerly supplied by German traders, but this competition is not at all serious. Over 90 per cent. of the shipping entered and cleared in 1919 was British.

**General Information.**—The Banks of New South Wales and of New Zealand have branches at Suva. The money, weights and measures are those of Great Britain. Mails reach Fiji from London via Sydney or Auckland in about seven weeks. There is cable communication with New Zealand, Australia and Canada, besides wireless installations.

## FORMOSA

See **Taiwan**, p. 453.

## FRANCE

**Area and Population.**—The French Republic (including the island of Corsica) has an area of nearly 213,000 square miles, or about  $1\frac{1}{2}$  times that of the British Isles, with a population of  $39\frac{1}{2}$  millions. Nearly 2 million people and 5,600 square miles of territory were added to France by the Treaty of Versailles, which restored to her Alsace-Lorraine. About  $1\frac{1}{2}$  million foreigners are resident in France, the most numerous being nationals of the boundary States—Italy, Belgium, Spain, Germany, Switzerland, in the order named. There are very large numbers of foreigners in Paris and on the Riviera. The birth-rate in France is under twenty per thousand, and during the war years, deaths were largely in excess of births. Hence France has not felt the need of overseas expansion as have such countries as Britain, Germany and Japan, nor is there any stream of emigrants such as leave Scandinavia, Italy and Russia. The foreign trade in 1919 amounted to £1,540 millions, or about £39 per head of population. The imports were over three times the exports, this abnormal state of affairs being due to the devastation of the leading industrial regions during the War. In 1913 the total was only £590 millions, of which imports represented 57 per cent., the small excess of imports being of normal occurrence, since France has valuable colonies which are giving a return for invested capital, and, in addition, much foreign money is spent in Paris and in French pleasure resorts. In 1920 there was a slight diminution in imports, and exports nearly doubled in value, while in the first half of 1921 there was a very heavy fall in imports, and a much smaller fall in the value of exports, largely due to falling prices. Thus a healthier state of affairs was in process of restoration.

The population of Paris now exceeds  $2\frac{3}{4}$  millions; the leading seaport, Marseilles, has over  $\frac{1}{2}$  million, as has Lyons, the commercial and industrial centre of the Saône-Rhone valley. Bordeaux, the western seaport, has over  $\frac{1}{4}$  million, and Lille, the great industrial centre of the north-eastern coal-field, has over 200,000. In addition there are eleven towns with over 100,000 inhabitants, including Strasbourg in Alsace, Nantes, Toulouse, St. Etienne, Nice, Le Havre, Rouen, Roubaix, Nancy, Reims and Toulon.

### Position, Climate and General Physical Conditions.

—France extends from latitude  $51^{\circ}$  N. (the latitude of Southern England) to latitude  $42^{\circ} 20'$  N., and has seaboard on the North Sea, English Channel, Atlantic Ocean and Mediterranean Sea, besides land frontiers with Belgium, Luxemburg, Germany, Switzerland, Italy and Spain. In the main, these frontiers are formed by well-marked natural features—the Ardennes and Rhine Mountains, the Rhine, the crest of the Jura Mountains, the crests of the Alps and of the Pyrenees—but in the case of Belgium the boundary is an artificial line across an open plain. The hilly region of French Lorraine, and the Gate of Belfort, between the Vosges and Jura, formerly gave access



## France.

to German Lorraine and Alsace respectively, while the gap between the Jura and the Alps, in which Geneva stands, affords an entry into Switzerland. To reach Italy the Alps must be crossed, or rounded at their seaward extremity by way of the Riviera. In the case of Spain, also, the main route is between the western spurs of the Pyrenees and the Bay of Biscay, and the secondary gateway between the Pyrenees and the Mediterranean. The fact that France has so much mountain country is of considerable economic importance, for the Vosges, Jura, Alps and Pyrenees all supply abundant water-





**France.**

of Normandy and Brittany, with a more rugged configuration, and a wetter and milder climate.

Second only in importance to the Paris Basin, which opens northward to the Channel, is the great trough drained by the Saône and Rhone, which opens southward to the Mediterranean, and has always been a great highway from that sea to the centre and west of Europe. Here the climate is much hotter than in Paris, and increasingly so towards the south, where the winters also become mild. In the lower Rhone and on the Mediterranean seaboard (Languedoc and Provence) the summer season is very dry, and the typical products of the south—the olive, mulberry, chestnut, peach—contrast with the grain, green crops, pastures and apple-orchards of the north. In Corsica the summer heat and drought are still more marked, and the

stony hill-sides are clothed with shrubs, such as myrtle, tree-heath, and ilex, rather than with grass.

A third great region is the Garonne Basin—Guyenne and Gascony—with a climate that is hotter in summer and warmer in winter than Paris, but with a rainfall that is more evenly distributed than in the Rhone valley, since the region forms a plain lying open to the Atlantic.

### Human and Economic Conditions.—

With so great a diversity of fertile regions, contrasting in soil, aspect and climate, and with a peasantry closely attached to the land, it is not surprising that France is normally almost self-supplying as regards food-stuffs, apart from those limited to



FIG. 64.—FRANCE: MANUFACTURES.

the tropics. The system of peasant-proprietorship and the division of the land into small holdings allows of intensive cultivation, and in many parts **fruit** and **vegetables** are raised as money crops. Consequently large quantities of greengages, walnuts, cherries, melons, asparagus, cauliflowers, beans and so on are sent to the English and German markets, besides dried plums and apples, while in addition the Paris and other French markets are supplied. Different districts specialise in different products, according to their climatic requirements, e.g. figs, almonds and melons come from Provence in the south, and asparagus from the Paris Basin, while the island of Corsica, which is as far south as northern Spain, produces citrus fruits, as well as almonds and **chestnuts**. The latter have been extensively planted in the south of France, especially on the slopes of the Cevennes, overlooking the Rhone valley. Such tree-crops turn barren hill-sides into well-paying property. *Olives* are characteristic of the regions

## France.

of summer drought. **Flower**-growing is an industry specially favoured by the mild winters and springs of the South of France, violets, roses, anemones, carnations, etc., being grown on a large scale, and the cut blossoms dispatched to the markets of Britain and (normally) Germany by special express trains.

The staple crop of France is, however, **wheat**, half the land under cereals being devoted to this crop, so that the bulk of the wheat flour needed is a home supply. The Paris Basin and the north-eastern plain are the great wheat regions. *Rye* and *buckwheat* are grown on the more sterile soils of the Central Plateau and of Brittany, while *oats* (second in acreage to wheat) are again more important in the Paris Basin, and *barley* in the basin of the Loire. *Maize* is grown, but in diminishing quantities, in the warmer Garonne basin, where the necessary summer rain occurs. Much maize and a little wheat is imported from the Argentine, but both wheat and barley are more readily supplied from French Algeria, where they are among the leading staples.

**Potatoes** are grown in quantities allowing of export, being specially important round the margins of the Central Plateau and in Brittany, where the soil is too poor and wet for cereals. Early potatoes are imported from Algeria and Spain, late varieties from Belgium. The **beetroot** is grown both for *sugar* and for the distillation of *alcohol*. This crop requires a large number of animals and of labourers for tillage, besides a considerable outlay for fertilisers, while it is necessary to arrange for the by-product—beet-pulp—to be fed to stock. It is grown especially in the densely peopled plains of the north-east. The average production of sugar is  $\frac{3}{4}$  million tons, i.e. but little less than the total requirements of the country. The progress of restoration is indicated by the fact that the 1921 crop was over  $\frac{1}{2}$  million tons as against 346,000 in 1920. *Flax* is another crop of the north-east, but the cultivation is decreasing, and the same is true of *hemp*, grown mainly in the north-west. *Tobacco* planting, which is fairly general, has also decreased. *Hops* are locally important, e.g. in Burgundy and Lorraine, and the acquisition of Alsace has considerably increased the home supply both of this crop and of tobacco, while the same region, which is extremely warm and fertile without being too wet, grows valuable wheat crops.

Although all these agricultural products are very important in the internal economy of France, it is the **vine** that holds the first place in regard to overseas trade, since French wines are sought after in every civilised part of the world. Only the north and north-west of France have summers too cool to bring the vine to perfection, and in these regions much cider and beer are brewed and consumed. The areas producing famous vintage wines are well-known; Champagne (with Reims and Epernay) in the east of the Paris Basin, Burgundy (with Beaune and Maçon) in the Saône Basin, Bordeaux in the Garonne Basin. Moselle wines come from Lorraine, and the restoration of Alsace adds a further wine-growing district. Charente, to the north of Bordeaux, is the centre for the distillation of **cognac**. Except, however, in the north and north-west, (where the cider-apple takes its place), the vine is grown in every valley, the production being about 1,000 million gallons, of which only 20–40 million gallons (mainly of the vintage wines) are exported. The import often reaches 200 million gallons, and includes besides Spanish, Portuguese and Italian vintage wines, much ordinary wine (e.g. from Algeria) for blending and bottling.



The animal industries are important, especially *dairying* in the moist pastures of Normandy and Brittany (which resemble Devonshire), and on the plains of Artois in the north-east. Artois was, of course, included in the devastated area, and the number of horned cattle in 1918 was  $12\frac{1}{4}$  millions, against  $14\frac{1}{2}$  millions in 1911. In 1920 it rose to  $12\frac{3}{4}$  millions. A considerable quantity of **butter** is normally sent across the Channel to England. In the regions opening to the Mediterranean the dry summers are unfavourable to grazing, so that *goats* and *sheep* which will browse on the hill-sides assume a greater importance, their milk being an article of commerce. In the upland and mountain regions pastoral industries assume a greater relative importance, e.g. cattle and sheep on the Central Plateau, cattle and goats on the Jura and in the Alps, cattle, goats and sheep on the Pyrenees. *Cheese* is very widely manufactured, both on the mountain pastures, and in the lowland grazing districts, and certain well-known varieties, e.g., Gruyère, Camembert, are exported. The number of sheep and lambs in 1920 was only 9 millions against  $16\frac{1}{2}$  millions before the War, and similarly the number of goats and pigs was seriously reduced.

*Silk* culture, encouraged by the Government, has a place in the lower Rhone valley, where the climate is favourable to the mulberry-tree. The output of  $2\frac{1}{2}$  million kilogrammes of cocoons (over 5 millions before the War) is, however, far below the requirements of the silk industry.

The *fisheries* of France are of considerable importance, although they have declined during the twentieth century. The catches of **cod** (including roe and oil) are worth about a million sterling, taken mainly on the Newfoundland and Iceland Banks. Saint Malo, in Brittany, and Fécamp, near the mouth of the Seine, are the principal ports for cod, while Boulogne ranks first with regard to the **herring** fisheries of the North Sea. **Tunny** and **sardines** are fished along the Atlantic and Mediterranean coasts, and when packed in oil form a valuable export, tunny going to Italy and Malta, sardines to Great Britain and the United States. Nantes has large canning factories, but the competition of Portugal is keenly felt.

As regards minerals, the chief wealth of France lies in **coal** and **iron**. The chief coal-fields are those of the north-east (Lens, etc.), supplying in 1913 some 27 million tons. Besides this large field there are a number of smaller ones distributed along the margin of the Central Plateau—Creusot, St. Etienne, Alais, Tarn, etc., which yielded another 12 million tons. Minor fields in the Alps, Vosges, etc., made up the total French output to 41 millions, leaving 21 millions to be made up by import in order to meet the total consumption. Actually some  $1\frac{1}{2}$  million tons more than this quantity were imported, since some of the Lens coal moves into Belgium by water, and some from the more southerly fields into Switzerland. The main import is from Great Britain, which was equal to that from Germany and Belgium combined. The Saar coal-fields, of which France now has possession, can produce 12 million tons, and the smaller fields of German Lorraine  $2\frac{3}{4}$  millions, so that when the damaged mines of the north-east are restored, the total resources will be considerably increased, and the French demand for British coal will correspondingly decrease. (In the twelve months ending July 31, 1921, the actual output was  $38\frac{1}{2}$  million tons). There will, however, be an increased consumption if France develops her *iron* industry, in view of the fact that by the acquisition of German Lorraine, her resources in iron ore are



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increased to a possibly embarrassing extent. In 1913 France produced nearly 22 million tons of iron ore, of which over 90 per cent. came from French Lorraine, Longwy, Briey and Nancy, and the rest from the neighbourhood of Le Creusot, and from Normandy, Caen being the shipping port. The Lorraine ores are rich in phosphorus, while pure hæmatite ores are mainly imported from Spain and Germany. France has also large iron resources in Algeria and probably in Morocco, while the former German Lorraine produces normally  $20\frac{1}{2}$  million tons. Hence France now ranks second only to the United States as potential iron-producing country, while Germany has a position inferior to that of Spain, and must buy from France. The manufacture of *pig-iron* and iron-castings averaged 5 million tons, and of trade iron, sheet iron and *wrought iron*  $\frac{1}{2}$  million tons before the War. The output of *steel ingots* was  $4\frac{1}{2}$  million tons, of which more than half was from Lorraine, of *blooms* and *billets*  $2\frac{1}{2}$  million tons, and of finished steel products 3 million tons. The chief steel-works are, of course, in Lorraine, on the north-eastern coal-field, at Le Creusot and St. Etienne, but important new works have recently been established at Caen.

France shares with the United States the leading position in the production of **aluminium**, the chief centres being in the Pyrenees, Cevennes and Savoie, since this mineral is electrically separated from its ore, but the bauxite itself is obtained from Var (Provence). The restoration of Alsace has added the *oil*-wells of Peschelbrön to the resources of the country (output 200,000 barrels), and there is an *oil-shale* industry at Autun (near Le Creusot) yielding 50,000 barrels annually.

**Salt** is mined to the extent of a million tons annually, chiefly from the red rocks in the Nancy region.

The *textile* industries of France are all on a very important scale, the number of cotton spindles being  $7\frac{1}{2}$  millions, and of cotton looms 150,000, the number of wool-combing and carding looms 3 millions, the number of linen spindles over  $\frac{1}{2}$  million, the number of silk looms over 40,000.

Since the **cotton**, **woollen** and **linen** industries were carried on largely on the north-eastern coal-field, all have suffered heavily by the War. Thus Epinal, Lille, Roubaix and Tourcoing were cotton centres, Roubaix and Tourcoing woollen centres, Lille the chief linen centre : only the silk centre, Lyons, escaped, and here the competition of cheap Eastern silks and of artificial silk must be faced.

Also in the war zone were the cotton mills of the Vosges (where water-power is largely employed), but here there was less destruction, and by the acquisition of Alsace, France has an additional 1·9 million spindles and 46,000 looms, the industry here centring at Mulhouse and Colmar. This was one of the leading cotton manufacturing regions of Germany. Outside the war zone, the cotton industry is important in Rouen and in Normandy, where American cotton is conveniently imported. Much British yarn is used on the looms. Cotton hose, lace and embroideries are the chief goods sent abroad. Caudry, near Cambrai, is a competitor of Nottingham for nets and coarse lace. Imported jute is manufactured at Dunkirk.

Apart from the north-east, the woollen industry is scattered in various districts where sheep are important, e.g. at Sedan, near the Ardennes, at Reims, near the chalk downs, at Elbeuf, on the chalk plain of the Seine, and at Vienne and other towns around the Central Plateau. Raw wools imported from Australia, either directly or through London, from Argen-

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tina, and in less quantity from Uruguay. France specialises in fine and dainty woollens such as cashmeres, merinos and delaines.

Lyons is the historic commercial centre of the **silk** industry, and here is the principal conditioning bureau, but the actual spinning and weaving mills are scattered through the lower Rhone valley, where the silk-worm is reared. The home supply of silk is barely a tenth of the total consumed, and the remainder is imported from the Far East and from Italy. Both heavy and light silks are manufactured, besides ribbons, and no other Continental manufacture can compete with French silks dyed in the piece. Nearly two-thirds of the export of silk goods goes to Great Britain, and a considerable proportion to the United States.

Among other industries in which France holds a foremost place is the manufacture of *automobiles*, centred at Paris, Lyons and St. Etienne. The pre-war export was worth nearly £10 millions, and the French cars compete successfully with those of the United States, Great Britain and Italy. Among luxury trades that of *perfumes* and *toilet soaps* requires mention, as here France (and especially Paris) leads the world, and the same is true of the manufacture of ladies' *gowns*, *hats* and *lingerie*. There is also a large manufacture of plain **soaps** at Marseilles, based originally on the local olive-oil. This port now receives olive-oil from Tunis, besides copra, ground-nuts, soya beans and other substances yielding vegetable oils. Hence oil-refining is important.

The manufacture of **rubber** tyres is a natural accompaniment of the automobile industry, and France is a leading market for rubber, receiving the raw material from her African colonies at Bordeaux, from Para at Havre, and from the Far East at Marseilles. Clermont-Ferrand, in the heart of the Central Plateau, is the leading centre of manufacture, while Marseilles and Paris have also important rubber works.

Other industries in which France is more than self-supplying are the *electrical industries* and the *electro-chemical* industries (preparation of aluminium, fertilisers, etc). It should be noted that France is making systematic use of the large reserves of hydraulic power supplied by the Vosges, Jura, Alps and Pyrenees, on all of which there is a steady and heavy rainfall, with in the higher mountains snow besides. It is estimated that  $1\frac{1}{2}$  million horse-power was installed in 1916, and the figure should shortly be  $2\frac{1}{2}$  million horse-power. Water-power has long been used on a small scale in the mountain valleys, and accounts for such industries as the lens polishing and briar-pipe making of the Jura. The fertiliser industry is greatly benefited by the restoration of Alsace, since in the Mulhouse region is an important **potash** deposit, which will render the country independent of Germany in this respect. An output of 700,000 tons of pure potash is expected in the next four years, and the resources of the area are said to be equal to those of the famous Stassfurt mines, which have hitherto practically held a world monopoly. Moreover in Tunis and Algeria there are enormous deposits of phosphate rock, and in the manufacture of **superphosphates** France is second only to the United States. Hence the productivity of the soil can be maintained, or even increased, provided the necessary labour is forthcoming.

The French *sugar-refineries* deal with large quantities of imported raw sugar, the most notable centres being Nantes, which deals with cane-sugar from Martinique and Guadeloupe, and Havre, which refines Continental



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(e.g. Czecho-Slovakian) beet-sugar. A part of the product is exported, while French chocolates and sweetmeats also have a large market abroad.

**Trade Relations.**—French luxury articles, including wines, perfumes, clothing, jewellery, artificial flowers, fine silks, confectionery, and automobiles, find a market throughout the civilised world, and especially in such centres of wealth as London, New York, Buenos Aires, and (before the War) Petrograd and Berlin. Great Britain, as lying nearest, has the largest consumption, followed by the United States with its large and comparatively rich population. The French Colonies (which cover 5 million square miles and have a population of  $53\frac{1}{2}$  millions) are also considerable purchasers of French manufactures, including, besides textiles, iron and steel goods, tools, machinery and wine. Broadly speaking the imports into France are of a more bulky character than the exports, including grain from the Argentine, raw cotton from the States and Egypt, raw wool from Australia and the Argentine, besides cotton yarn and woollen yarn from Great Britain. Cacao, rubber, rice, coffee, oil-seeds, sugar, and other colonial wares come in large quantities from the French Colonies and from tropical South America, while coal and machinery (largely from Great Britain) petroleum (from America) and copper (from Spain and America) are also imported to the value of many millions. In the years immediately preceding the War the proportion of French trade to and from the leading countries was as follows: Great Britain, imports 13 per cent., exports 21 per cent.; United States, imports  $9\frac{1}{2}$  per cent., exports 6 per cent.; Germany, imports  $12\frac{1}{2}$  per cent., exports  $12\frac{3}{4}$  per cent.; Belgium, imports  $6\frac{3}{4}$  per cent., exports 16 per cent.; Algeria, imports  $4\frac{1}{2}$  per cent., exports 6 per cent. In 1918, 33 per cent. of the imports were from the States, 28 per cent. from Britain, and 5 per cent. from Argentine, while of the exports 24 per cent. went to Britain, 20 per cent. to Italy and 11 per cent. to Algeria.

The internal trade of France is greatly facilitated by a fine system of canals and canalised rivers, the traffic being specially heavy on the Seine below Paris, and on the Oise and the canals of the north-east which are linked with those of Belgium. A scheme is under consideration for the transformation of the Rhone (at present unnavigable) into a trunk waterway to Lyons and Geneva (Switzerland) and incidentally, by locking up the water, to provide power for large hydro-electric stations. Large sums of money have also been allocated for port improvements, and the Marseilles-Rhone canal is making progress.

The bulk of the heavy overseas traffic of France passes through Marseilles, Havre and Bordeaux, but there is also great activity at Dunkirk (for the north-east), at Rouen (on the Seine) and at the packet stations of Boulogne, Calais and Dieppe. Brest has a fine deep-water harbour, where facilities were enormously increased during the War.

**General Information.**—The unit of currency is the *franc*, of normal value  $9\frac{1}{2}d.$ , or 25·225 to the pound sterling. Gold pieces of 20 francs and 10 francs were in common use until the War, but in 1919 the notes issued had a total value six times as great as in 1914. The issue of bank-notes is limited to the Bank of France, which is under State control. The Comptoir National d'Escompte de Paris, and the Crédit Lyonnais have London Offices, while the London, County, Westminster and Parr's Bank has a Paris Branch. Mails reach Paris in a day, or by air in a few hours. There are



## French Establishments in Oceania.

British Consul-Generals at Paris, Havre, Marseilles and Lyons, and Consuls at all the principal ports and industrial centres. A Commercial Counsellor and a Commercial Secretary are attached to the British Embassy.

## FRENCH CHINA

*Kwang Chau Wan* is a territory in Southern China, on the coast of Kwantung, leased to France. It covers 190 square miles, and has a population of 168,000. The crops are those of Southern China—rice, maize, millet, sugar, tea, cotton, silk and tobacco, which are consumed locally. *Pigs* are reared, and are an article of export, besides straw mats and sacks. Cotton piece goods and petroleum are the chief imports. The port is a free one, and is in regular communication with France.

## FRENCH ESTABLISHMENTS IN OCEANIA

**Area and Population.**—The Ocean Island Settlements are a French Colony administered by a Governor. They include the Society Islands



Fig. 65.—FRENCH OCEANIA.

## **French Equatorial Africa.**

Marquesas Islands, Tuamotu group, Leeward Islands, Gambier, Tubuai, and Rapa Islands. The only large island among them is Tahiti (600 square miles). The total area is 1,500 square miles, and the population about 31,000, including about 2,000 French colonists, 2,000 foreigners, and some hundreds of Chinese, besides Polynesians. Of this total nearly 12,000 are in Tahiti, where is the principal port and centre of administration, Papeete. The total trade in 1917 was £ $\frac{3}{4}$  million (£25 *per capita*), exports being valued at nearly £ $\frac{1}{2}$  million.

**Position and General Information.**—The various island groups are scattered over a wide area in the eastern part of the South Pacific Ocean. Broadly, they lie between 8° S. and the Tropic of Capricorn, and between 130° and 150° east of Greenwich, about 3,000 miles from America. Tahiti is mountainous and forested, but the greater number of the islands are low-lying and of coral formation. All have the healthy, pleasant perpetual summer climate associated with the Pacific islands. The principal product is **copra** (£250,000 in 1917) from the numerous coco-nut groves, but sugar, cotton, coffee, tobacco, bananas, and a great variety of other tropical produce can be grown. **Vanilla** is successful and ranks next to copra as an export. The natives are mainly fishers, and the Tuamotu Islands supply the bulk of the *mother-of-pearl* exported. There are also enormous deposits of very high-grade **phosphates** which are worked on Makatea, one of the Society group.

The language, currency, weights and measures are French. The Banque de l'Indo-Chine has a branch at Papeete. A New Zealand steamship company sailing to San Francisco (with a French subvention) visits the islands monthly. There is no cable service or direct connection with France, hence the trade is with New Zealand and America. There is a British Consul at Tahiti.

## **FRENCH EQUATORIAL AFRICA**

**Area and Population.**—French Equatorial Africa includes the Gabun, Middle Congo and Ubangi-Shari Colonies, Chad Territory, the (formerly German) Cameroon, and the Wadai Protectorate. Each territory is administered separately, but the whole region is under a Governor-General. The total area is about 1 million square miles—roughly the area of British South Africa, and the population has been estimated at 12 millions, mainly pagan negroes. The whole trade of this enormous territory is, however, barely £3 millions. The seat of the General Administration is at Brazzaville, situated at a healthy elevation on the River Congo, opposite Leopoldville, capital of Belgian Congo.<sup>1</sup>

**Position and General Physical Conditions.**—Broadly speaking, this French territory stretches from the equatorial coast of Africa (4° N.–5° S.) inland towards the north-east as far as the Nile watershed and the Egyptian Sudan. South-eastward it is separated by the Ubangi and Congo rivers from the Belgian Congo. North-westwards it marches with British Nigeria (to which a small part of German Kamerun was

<sup>1</sup> For Map see French West Africa.

**French Guiana.**

added), and in the Lake Chad area it is bounded by the French Military Territory of the Niger, which is included under French West Africa.

The regions within 300 miles of the Equator have very heavy tropical rains, and are to a large extent clothed with dense forests. With increasing distance northward, the dry season becomes more prolonged, and the total rainfall less. Hence the forests give place to open woodland and savannahs, and this in turn to scrubland, until finally, on the northern confines of the territory lies the Sahara Desert. The greater part of the country is elevated, the greatest altitudes being found in the Cameroons.

**Human and Economic Conditions.**—The territory is practically undeveloped, except for a small trade along the coastal belt in natural forest produce, chiefly *palm oil* and wild *rubber*, and a little *timber*. In the former German Cameroon, however, many plantations had been laid out. These include 25,000 acres under **cacao**, 17,000 acres under **rubber**, and in this region the trade in palm oil and kernels is much more active. In Gabon the French planters have cultivated some **coffee**, and minor products of the forest region are ivory and kola-nuts. With the Cameroon the French have acquired the important port of Duala (population 22,000), which was the centre of development, and the railways running from it to the north and east (about 20 miles). Besides being suited to plantation products, the forest region has valuable timbers, such as ebony and other hardwoods. The interior savannahs of the Ubangi-Shari and Chad Colonies, and the northern Cameroon are suitable for cotton and maize cultivation, and produce abundance of *ground-nuts*, besides *cattle* and other live stock. At present, however, there is no means by which such products could be transported to the coast. The tsetse fly is found in the forest region, and in some districts sleeping sickness is very prevalent among the natives.

**Trade Relations and General Information.**—Trade is chiefly with France, but British cotton goods for the native market enter the country. The chief ports are Libreville, with deep sheltered anchorage in the mouth of the Gabun river, and Duala, with fair accommodation. Brazzaville is reached via the Belgian port of Boma. French weights and measures and money are in use.

The French Bank of Equatorial Africa, Ltd., has offices at Brazzaville. Communication between different parts of the Territory is by telegraph and wireless, and there is cable connexion with Britain. Mails take a fortnight to three weeks. There is a British Consul at Boma (Belgian Congo), a vice-consul at Libreville, and a Government Agent at Duala.

## FRENCH GUIANA

**Area and Population.**—French Guiana is a colony administered by a Governor. It has an area of 32,000 square miles (equal to that of Ireland), and a population of about 30,000 persons, excluding some 6,000 convicts and ex-convicts in the penal settlement. Cayenne, the principal town and seaport, has 13,000 inhabitants. The total foreign trade is under

<sup>1</sup> For Map see British Guiana.



## French India.

a million sterling, since little has been done to develop the resources of the colony.<sup>1</sup>

### Position, Climate and General Physical Conditions.

—Lying between latitudes 2° and 6° N., French Guiana has a uniformly hot and wet climate all the year round, resembling that of the Amazon basin, and is consequently clothed with dense virgin forest. Towards the interior there are highlands, at present practically inaccessible, where conditions are more favourable, there being a season of dry, cool weather, and an open savannah type of vegetation.

**Human and Economic Conditions.**—The climate and soil of the colony are suitable for all types of tropical plantation products—sugar, rice, cacao, coffee, rubber, and so forth, but in the absence of coolie labour there is little cultivation except for local needs. **Gold-mining** is the principal industry, the river gravels being rich in alluvial gold. The output is worth about £½ million annually. Apart from this, the produce of the *cacao* plantations and a small quantity of *phosphates*, worth but a few thousands of pounds, are the only exports. Except for fruit, vegetables and some locally grown maize, rice, sugar and coffee, all the necessities of life for the colonists are imported.

The settlements are along the coast, and by the rivers and creeks, communication being mainly by water. There are few roads and no railways. A French cargo boat calls monthly, and Demerara (in British Guiana) serves as an entrepôt for the colony.

**General Information.**—The local Banque de la Guyane lends money for agricultural and other purposes. The coinage, weights and measures are as in France, i.e. *francs* are the money unit, and the metric system is employed. The British Consul at Paramaribo (Dutch Guiana) is Consul for Cayenne.

## FRENCH GUINEA

See **French West Africa**, p. 231.

## FRENCH INDIA

**Area and Population.**—French India consists of five separate colonies, Pondichéry, Karikal, Chandernagar, Mahé and Yanaon, covering an area of 196 square miles, and having a population of 266,000. Of these, over half are in Pondichéry, where the Governor of the Colonies resides.

**General Information.**—The staple crops of India, rice, cotton, sugar, oil-seeds, ground-nuts, are grown in the French colonies, of which the rice and sugar are locally consumed. **Cotton** is spun and woven in four mills in Pondichéry, on the Coromandel Coast, while at Chandernagar, on the Hoogly, north of Calcutta, there is a **jute** mill. **Oil-seeds and ground-nuts** are pressed at Pondichéry, and form the staple export of the colonies. The trade is worth rather over £1 million, passing chiefly through Pondichéry, and to a less extent through Karikal and Mahé, which are ports. A part of

***French Indo-China.***

the trade is in transit to and from neighbouring districts of British India, Pondichéry and Karikal being the chief points of shipment of Indian ground-nuts. The unit of currency is the Indian rupee.

**FRENCH INDO-CHINA**

**Area and Population.**—French Indo-China comprises the Colony of Cochin China, and the Protectorates of Cambodia, Annam, Tonking and Laos. The whole country is under a Governor-General, but there are native monarchs on the thrones of Cambodia and Annam. The total area is 256,000 square miles (nearly as large as Japan), and the population numbers 17 millions, of whom about 24,000 are European traders and colonists. The foreign trade exceeds £32 millions (i.e. nearly £2 per head), and is capable of great expansion, Indo-China being the most valuable of all the tropical possessions of France.

The people are a branch of the South Mongolian race, although the Cambodians have physical characters which suggest a cross with an early race more similar to the European type. Education on Western lines is making headway, and there is a University at the capital city, Hanoi. This town has a population of about 150,000, and is the northern entrepôt of Indo-China, its port being Haiphong, (population 75,000) while all the trade of the south passes through Saigon, which has 100,000 inhabitants. Immediately adjacent to Saigon is Cholon, a town of 168,000 inhabitants, of whom nearly half are Chinese. Pnom-penh, the capital of Cambodia, has about 85,000 people, Hué, the capital of Annam, has 60,000. As in Siam and Malay, much of the petty trade, both foreign and local, is in the hands of the Chinese, of whom there are over 200,000 in the country.

**Position, Climate and General Physical Conditions.**

—French Indo-China lies on the east coast of Asia, to the south of China, and stretches from the Tropic of Cancer to within 8° of the Equator. Thus it has a tropical monsoon climate, with great heat and moisture combined in the summer months. Owing to the fact that no part of the country is much more than 200 miles from the sea, the rains are not uncertain as they are in parts of India, and even during the winter monsoon there is some precipitation. Eastwards the outlook is across the South China Sea (often swept by typhoons) towards the Philippines. South-westwards the outlook is over the Gulf of Siam to Malaya. On the land boundaries are China, Burma, and Siam.

The mountain system is a continuation of that of Yunnan. Two ranges diverge from the northern frontier: one runs eastwards and shuts off China, the other turns southwards, parallel to the coast of Annam. In the angle between the two flows the Song-ka (Red River), which has an exceedingly fertile flood plain and delta, the home of the bulk of the population of Tonking. Coming also from Yunnan, and flowing parallel to, but behind, the coast range of Annam, is the great Mekong River, which along its lower course has built up a vast flood plain and delta, where the majority of the Cambodians and Cochin Chinese live. The mountains are heavily forested, and in the Laos territory, near the Burmese frontier, there is abundance of teak,

## French Indo-China.

**Human and Economic Conditions.**—As on all the flood plains of the rivers of the monsoon region, **rice** is the staple crop of the two most productive areas, the lower Song-ka and the lower Mekong. After the home population has been fed there remains a big surplus for export, and in view of the large extent of undeveloped land, this quantity might be increased, while even the existing fields would be more profitable if more attention were paid to seed selection, and to the grading of the rice before shipment. The 1919–20 crop was  $1\frac{1}{2}$  million tons, of which a quarter of a million tons was from Tonking. Rice-milling is very important at Haiphong, Saigon, and Cholon.

The other crops grown on a considerable scale by the natives, although playing but a minor part in the export trade, indicate the latent possibilities of the country. They include *cotton, silk, tea, sugar, pepper, maize, tobacco, ground-nuts*—in fact all the products that are found in the wealthy provinces of Southern China. The native industries, too, are similar to those of the Chinese—cotton and silk weaving, embroidery, cane and bamboo work.

The great majority of the European plantations are under rice, but two industries of great promise are **rubber** and **coco-nut** planting—the latter being carried on by the native peoples also. Both these products are suited rather to Cochin China and Cambodia than to Tonking, where *coffee*-planting is on the increase. The copra is handled by the oil-mills of Saigon.

As the country is not over-populated, there is plenty of natural grazing for *cattle* and *buffaloes*, and hides are exported, while, as in China, many people devote themselves to river- and sea-fishing, and there is a surplus of dried *fish*. *Pigs* are also very numerous, and a canning industry has begun.

As in neighbouring Yunnan, the mountains are rich in minerals, of which **zinc** (40 tons of ore) and **antimony** are mined in Tonking, besides smaller quantities of *tin* and wolfram. **Coal** is mined in Central Annam, close to the coast, and is exported from Tourane, but the chief mines are those of Hongay, near the coast in Tonking, producing over 700,000 tons; 200,000 tons of



FIG. 66.—FRENCH INDO-CHINA.



**French Somaliland.**

briquettes are also produced. Limestone is quarried for manufacturing cement, of which the surplus is exported. **Teak** is floated down the Mekong from the Laos territory, but this region has not been thoroughly free from disorders among the native peoples, and is difficult of access, owing to the rapids which obstruct the river at Khone.

**Trade Relations.**—The rivers are the great highways of commerce, but both from Hanoi and Saigon railways have been constructed to bring in the rice from areas lacking water communication. Hanoi is also the terminus of a railway running up the Song-ka Valley into Yunnan, to serve the Chinese tin mines. As in all French colonies, attention has been given to road-making, and there are some 9,000 miles of motor-roads.

Rice forms about 70 per cent. of the total export trade, the remainder being made up of relatively small shipments of copra, rubber, coco-nut oil, sugar, cotton, tea, zinc, antimony and coal. France holds, of course, the first position both as regards the export and import trade, but much of the Tonking rice goes to China via Hong-Kong, while that from Saigon goes to Singapore. Japan takes the raw cotton, and a considerable share of ores, and finds a market in Indo-China for cotton and silk piece goods, cotton clothing, boots and shoes and other manufactures. America, too, has been making an effort to obtain a footing, supplying, e.g., galvanised sheets and other metal goods. The colony is practically self-supporting as regards food-stuffs for the peasantry. The chief imports, therefore, are of textiles (chiefly cotton), machinery, hardware and other metal goods, leather and paper goods, glass and earthenware, besides food and luxuries for the European population, and for the wealthy natives. Great Britain sent goods (chiefly cottons) worth over £2 millions to French Indo-China in 1919.

**General Information.**—The principal bank is the Banque de l'Indo-Chine, at Saigon. The Chartered Bank of India, Australia and China and the Yokohama Specie Bank have branches at Saigon and Haiphong. The money unit is the *piastre*, a silver coin worth about 2s., but French coins, weights and measures are also employed. British vessels from Singapore and Hong-Kong, and French vessels from Marseilles visit Saigon and Haiphong (for Hanoi) regularly. Japanese vessels also call frequently. There is a British Consul at Saigon, and a Vice-Consul at Haiphong.

## FRENCH SOMALILAND

**Area and Population.**—The French Colony of the Somali Coast is administered by a Governor. It covers an area of nearly 6,000 square miles, and has 206,000 inhabitants, of whom nearly 14,000 live in the seaport and administrative centre of Djibouti. There is a large foreign element at the port, which handles a trade of about £7 millions. The Europeans include French, Greek and Levantine traders (nearly 300), besides over 4,000 Arab traders and a few Indians.<sup>1</sup>

**Position and General Conditions.**—French Somaliland lies on the African coast at the head of the Gulf of Aden, and commanding

<sup>1</sup> For Map see Abyssinia.

## ***French West Africa.***

an important inlet. The climate is exceedingly hot and dry, and the native Somalis are pastoral nomads. Some **salt** is mined, but the local industries are of little importance, the trade being of an entrepôt character. Practically the whole of the trade of Abyssinia passes through Djibouti, conveyed either by caravan or by the railway (386 miles), which has been constructed to Addis Abeba. The leading outgoing products are hides and skins, coffee, and a little ivory, while the trade inwards is chiefly cotton goods, sugar and miscellaneous hardware for Abyssinia, besides bunker coal, and food-stuffs and clothing for the population of the colony itself. Commanding the outlet of the Red Sea, Djibouti and the secondary port of Obok are very favourably placed as regards shipping facilities. The Banque de L'Indo-Chine has offices at Djibouti, and agencies in London.

## **FRENCH SUDAN**

See **French West Africa**, below.

## **FRENCH WEST AFRICA**

**Area and Population.**—French West Africa covers over  $1\frac{1}{2}$  million square miles (half the area of all the British territories in Africa), and has a population of between 11 and 12 millions, of whom all but a few thousands belong to African races. The European population is about 9,000, of whom nine out of every ten are Frenchmen. More than a third of the whites live at Dakar (total population nearly 30,000), the seat of administration for the whole region, which is under a Governor-General. Dakar is the best equipped deep-sea harbour in West Africa, and is also a fortified naval station. Outside the organised territory, France has possession of the Sahara as far as the borders of Libya and Egypt, the estimated area of which is  $1\frac{1}{2}$  million square miles, and its population  $\frac{3}{4}$  million; but it is without economic value.

French West Africa thus includes the whole of the southern Sahara and the greater part of the Sudan west of the Nile basin. It extends down to the Atlantic and Guinea coasts at various points, and thus completely surrounds the West African territories of other Powers. It comprises six colonies: (1) Senegal, adjacent to British Gambia; (2) French Guinea, adjacent to Sierra Leone; (3) the Ivory Coast, adjacent to the British Gold Coast; (4) Dahomey, adjacent to Nigeria; (5) Upper Volta; (6) Mauretania, comprising the western Sahara; (7) Upper Senegal and Niger, the inland region of the Sudan, drained by those rivers. With the last region it is also convenient to group (8) the Military Territory of the Niger, which is the part of the Sudan and Sahara to the north and north-east of Nigeria.

The total foreign trade of the whole region exceeds £24 millions (rather under £2 per head of population), but this figure is misleading, since even on the coastal fringes serious development has scarcely begun. Taking the colony of Senegal alone (for which Dakar is the port, and upon which

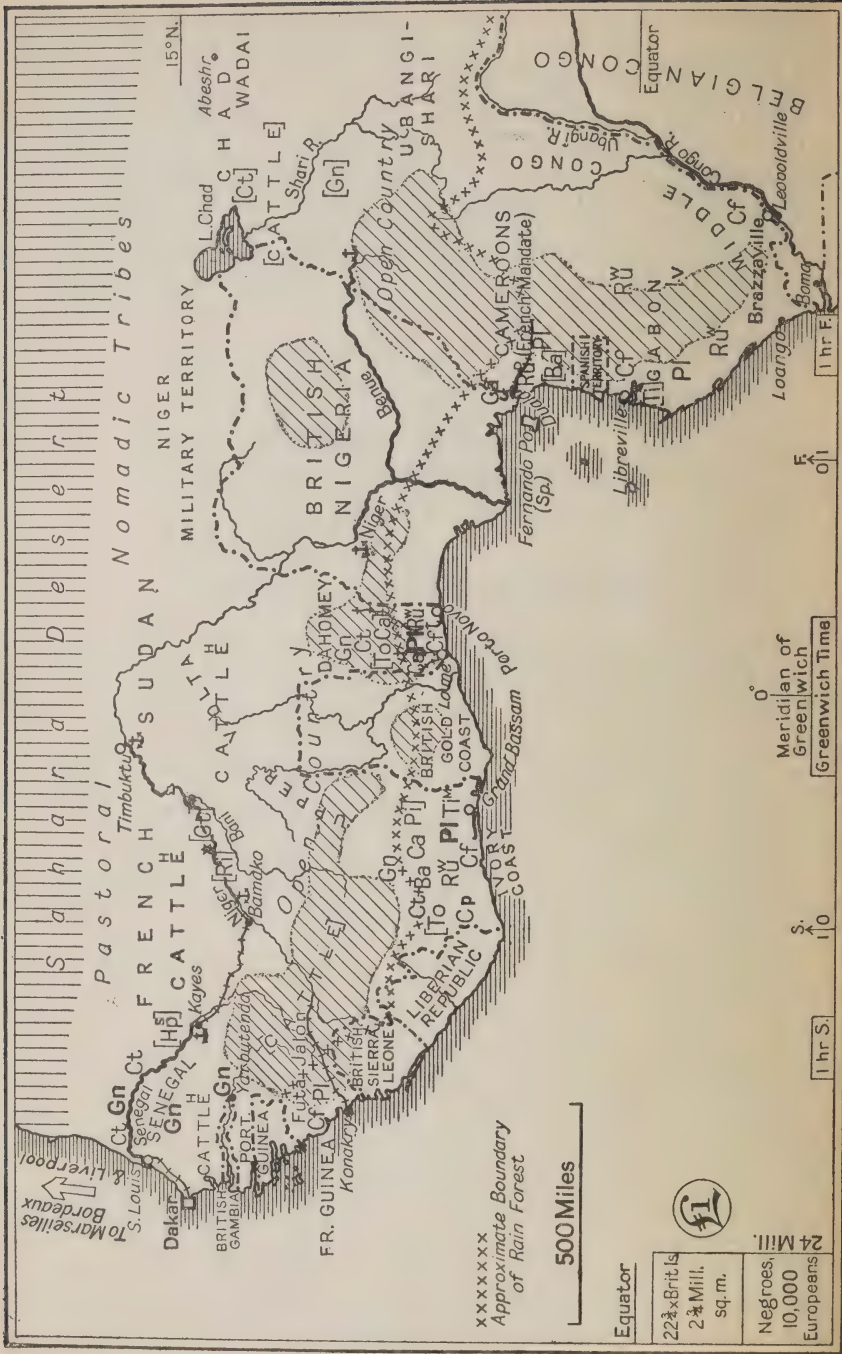


FIG. 67.—FRENCH WEST AFRICA AND FRENCH EQUATORIAL AFRICA. (STATISTICS FOR COMBINED REGIONS.)



## *French West Africa.*

the attention of the Government and traders has been mainly concentrated), the trade is nearly £14 a head, which is greater than that of any part of British West Africa, and suggests the vast potential trade of the whole area when transport facilities are extended and agricultural methods improve.

French West Africa is capable of supplying nearly every variety of tropical food-stuff and raw material to the mother country, and as French territory extends from the shores of the Gulf of Guinea to the Mediterranean coast, the idea of a trans-Saharan railway linking the North African to the West African colonial systems is by no means chimerical. Experimental plantations and agricultural research stations have been established.

By the acquisition of that part of Togoland marching with Dahomey, French West Africa has gained territory to the extent of 20,000 square miles, a population of about  $\frac{3}{4}$  million, and a trade which before the War had reached close on a million sterling, besides the port of Lome, and 204 miles of railway running in three directions through the palm-oil region.

### **Position, Climate and General Physical Conditions.**

—French West Africa extends from within 5° N. of the Equator to the tropic of Cancer (approximately), i.e. covers practically the same latitudes as the Indian Dekkan and Ceylon. Like the Dekkan, too, West Africa is a tableland, averaging from 1,000 to 3,000 ft. elevation. The tableland on the whole presents its steepest edge southwards, and slopes gently towards the Sahara. The Futa Jallon highlands, in the interior of French Guinea, rise from 3,000 to 6,000 feet, and the Mossi highlands, in the south of Upper Senegal and Niger, have about the same elevation. Hence the conditions as regards heat are similar to those in southern India, being least trying to Europeans in the elevated regions named. As in India, the sequence of rainy and dry seasons is the most important element in the climate. Along the Guinea Coast the heavy tropical rains continue during at least three-quarters of the year, and the climate is uniformly hot and damp, necessitating strict sanitary and hygienic precautions if health is to be maintained. The rain belt extends northwards as summer advances, until the fringe of the Sahara is reached, retreating again during the autumn. Hence to the north of the belt of prolonged rains is a belt with half the year wet and half dry, and to the north of this again a belt with only a quarter of the year wet and the remainder dry. Finally, in the Sahara, the drought is unbroken, save by occasional storms. The heat is most intense during the latter part of the dry season, before the summer rains. The basin of the Senegal river is the most extensive lowland, where, consequently, the heat is not modified by elevation. The vegetation belts correspond to those of rainfall. Along the south coast are dense forests, in which oil and coco-nut palms, mahogany and other hard woods, and rubber vines are found. Gradually the forest becomes more open, and merges into a rich savannah, where tall grasses predominate, varied by clumps of palms and acacias, baobab trees, and shea-butter trees. As the dry season lengthens northwards, the savannah land becomes poorer, and there are many thorn bushes and drought-resisting shrubs, while the grasses no longer form a continuous carpet.

In the forest belt the tsetse fly is found, and hence cattle cannot be reared: this is a purely agricultural region. In the rich savannahs, cattle keeping is combined with agriculture, while in the poor savannahs, cattle keeping becomes the more important, and agriculture more precarious, except where irrigation is possible.

**French West Africa.**

The principal rivers, the Senegal and Niger, both rise in the Futa Jallon highlands. The former flows north-westward and then westward to the Atlantic; the latter flows north-eastward and then south-eastward to the Gulf of Guinea. Together they afford a natural highway from west to east through the western Sudan, which corresponds to the savannah belt.

A series of smaller rivers, flowing from the edge of the tableland southward and westward serve as local lines of communication, and the great lagoons that fringe the Ivory Coast provide an important inland waterway, for owing to the constant south-westerly winds, a heavy surf breaks continuously upon the Guinea Coast.

**Human and Economic Conditions.**—The pagan negro races of the forest belt practise agriculture, growing such crops as yams, manioc and plantains for their own use. For trade purposes they collect the fruit of the oil-palm, and **palm-kernels** and **palm-oil** are the leading articles of commerce. The greatest output is from Dahomey, through the principal trading station Porto Novo; there is also a large export from Grand Bassam, the chief port of the Ivory Coast, and from Lome in Togoland, besides a smaller output through Konakry in French Guinea. Forest products of secondary importance are *rubber*, *coco-nuts* and *kola-nuts*, which are collected by the natives. **Mahogany** is exploited under European direction in the Ivory Coast, as it is in the neighbouring Gold Coast. In the more open forest country of Ivory Coast, Togo and Central Dahomey native **cotton** cultivation is being carefully fostered, and *maize* in small quantities is ground by the natives for export, while experience in neighbouring colonies points to *tobacco* and **cacao** as being crops which the native farmers might be encouraged to produce. The plantations of the latter, established under German direction in Togoland, produced nearly 3,000 tons of cacao in 1919. Tropical fruits, such as *bananas* and *pineapples* could also doubtless be grown as money crops. The hoe is the only implement employed, and little use is made of fertilisers.

European plantations are not extensive, but *coffee* has proved successful in all three of the colonies on the Guinea Coast, and a large *sisal* plantation at Kayes on the middle Senegal suggests a possible new staple.

In the savannah lands, the natives grow millet, maize, and **ground-nuts** for food purposes. The last named is easily grown, and wherever transport is available is grown also as a money-crop. It is this product that forms the staple of Senegal (as it does of neighbouring Gambia), and raises the per capita trade of that colony to the high figure already mentioned. The total of ground-nuts from French West Africa is about  $\frac{1}{4}$  million tons, or 30 per cent. of the world's supply on the market. In the same regions, cattle, sheep, and goats are largely reared on the natural pastures, so that *hides* and *skins*, and live *cattle* are exported, although not on a large scale. The Futa Jallon and Mossi highlands are suited to European settlement, and their farming would probably resemble that of Rhodesia, where horned cattle, maize and tobacco are the staples. The development of the cattle industry, especially by improving the stock and supplementing their scanty food in the dry season, would make it profitable to extract the palm, coco-nut and ground-nut oils at mills on the coast, for a local market would be provided for the oil-cake, as a cattle-food and fertiliser.

In certain parts of the Senegal and Niger valleys the natives grow **cotton**, and the industry is capable of development. Where there is natural inunda-

## **French West Africa.**

tion during the rains they also grow **rice**, and the region between the Bani and Upper Niger rivers (near the large towns of Segu and Sansanding) is one where, with systematic irrigation, large rice and cotton crops could be grown.

The *shea-butter* tree adds another to the list of marketable savannah products, while *gum arabic* comes from the desert margins.

**Trade Relations.**—A railway runs from Dakar to St. Louis, at the mouth of the Senegal, and steamers ply on this river as far as Kayes. Thence a railway runs to Koulikoro on the Niger, from which point there are small steamers descending the river to Timbuktu during the late summer (high water) season. From Konakry, in French Guinea, a line runs inland to the Upper Niger, and from Kotonu, a port of Dahomey, a line runs inland, and is continued by a motor road to the Middle Niger. Both road and railway construction are proceeding steadily. The various oil-seeds of West Africa go mainly to Marseilles and Bordeaux, and to a less extent to Britain and the United States. Cotton goods form the largest item imported (over £2 millions), and more than half come from Britain, France having the second place. Wines, spirits, sugar, tea, rice, and miscellaneous food-stuffs for the European and seaport populations make up a total of nearly £1 million, and there is a growing demand for tools, implements, cutlery, machinery and metal goods generally. Motor-cars are supplied from France.

Dakar is the only good port, and can accommodate the largest vessels.

**General Information.**—The use of French weights and measures (the metric system) and money (the *franc* as unit) is compulsory throughout French West Africa. The French Bank of West Africa has its headquarters at Dakar, where also the British Bank of West Africa and the Colonial Bank have branches. From Dakar a cable runs to Brest, while Timbuktu and Bamako are in wireless communication with Paris. The telegraph system is very complete throughout the colonies. Mails from England take about ten days to reach Dakar, which is in regular communication with Liverpool. There is a British Consul-General at this port.

## **FRIENDLY ISLANDS.**

See **Tonga**, p. 457.

## **GABUN**

See **French Equatorial Africa**, p. 225.

## **GALAPAGOS ISLANDS**

See **Ecuador**, p. 196.

## **GALICIA**

See **Poland**, p. 385.



## GAMBIA

**Area and Population.**—The British Colony and Protectorate of Gambia is administered by a Governor. The actual colony comprises the Island of St. Mary on which Bathurst stands, with a population of 8,000, while the Protectorate, a narrow strip on either bank of the Gambia River, covers 4,500 square miles, and has a population of 200,000, mainly pagan negroes. The imports and exports of merchandise in 1919 totalled £2,800,000, or over £10 a head, the colony being for its size a prosperous one. Europeans number under 200. A small proportion of the natives have received an elementary English education.

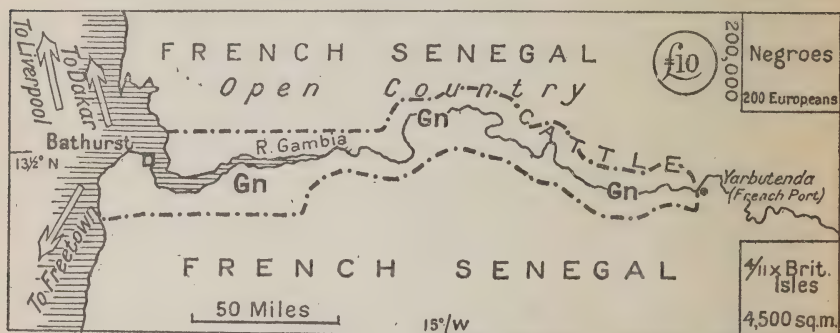


FIG. 68.—GAMBIA.

### Position, Climate and General Physical Conditions.

—Gambia lies between latitudes 13° and 14° N. of the Equator in West Africa, on the margin of the equatorial belt, and has a very hot rainy climate for five months in the year (June to October), followed by seven months dry weather, during which conditions are more healthy and pleasant. The country is, owing to this prolonged drought, only lightly forested, and there is much grassland. Mahogany, oil-palms and rubber are found, but not in the same abundance as they occur in the dense forests of the Guinea Coast. The river Gambia flows from east to west through the colony and enters the Atlantic Ocean about 100 miles south of Cape Verde.

**Human and Economic Conditions.**—The people of Gambia are negroes who engage in hoe agriculture, cultivating maize, millet and rice, and keeping cattle, sheep and goats. The only crop grown for trade purposes is **ground-nuts**. These form the staple product of the country, representing 90 per cent. of the value of the total export trade, the output being 70–80,000 tons. Some 20,000 immigrant farmers come annually from neighbouring territories to cultivate them during the season, i.e. from June to November. The balance of exports is made up of *hides* and small consignments of *palm kernels* and *piassava* (brush fibre), the latter growing wild along the river banks.

**Trade Relations.**—As Bathurst is not a port of call for the main steamship lines to Africa, a considerable proportion of trade goes through Dakar in French Senegal or through Sierra Leone. The percentage of

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trade handled by France has diminished owing to War conditions, that of Germany has disappeared, while there has been an increase in the direct trade with the United Kingdom and with the United States. Practically all the piece goods (cottons) imported come from Great Britain, while jute bags and rice come from India, and kola-nuts (for chewing) from Sierra Leone. Hardware is supplied by Britain, France and the United States, and in 1920 Britain reasserted her supremacy. Imported goods fell below the normal during the War, and hence the demand is keen.

**General Information.**—The special West African silver currency circulates in Gambia, and the French five-franc piece is legal tender at a fixed value. The Bank of West Africa and the Colonial Bank have branches in the colony. There is a fortnightly mail service from Liverpool to Bathurst (transit fourteen days), and cable connection with Cape Verde Islands. There are no inland railways or telegraphs, but the river Gambia is navigable throughout the country and communication is by steamers and motor-launches. The Receiver-General, at Bathurst, acts as Imperial Trade Correspondent.

## **GEORGIA REPUBLIC**

See **Caucasia**, p. 135.

## **GERMAN REPUBLIC**

**Area and Population.**—The area of the German Republic, established in 1918, cannot definitely be stated until, after decisions in the plebiscite areas, the boundaries are finally fixed. It is estimated at about 182,000 square miles ( $1\frac{1}{2}$  times the British Isles), supporting a population of 60 millions ( $1\frac{1}{4}$  that of the British Isles), 52 per cent. of these being females. The losses by the Peace Treaty involved territory equal in area to Ireland, together with nearly 8 million people. The most serious of these losses was the mining and manufacturing region of Alsace-Lorraine, while the provinces of Posen and West Prussia, ceded to Poland, were valuable since they produced food-stuffs and live-stock in excess of their needs; the lost section of Upper Silesia, too, was an important mining and industrial centre. As regards cities, the chief losses were that of Strassburg, a great traffic centre in Alsace, and of Danzig, a valuable seaport for East Baltic traffic: the combined population of these cities equalled that of Bristol. The withdrawal of the Grand Duchy of Luxemburg from the German Customs Union also represents a considerable commercial loss, since the Duchy is a great iron-working centre.

Germany has no great centre of population comparable to London or New York. Berlin, with 2 million inhabitants, or  $2\frac{1}{2}$  million including the suburbs of Spandau, Charlottenburg, and Potsdam, is smaller than Paris: Hamburg, the leading seaport, standing on the Elbe estuary, is comparable in size with Liverpool, having about a million inhabitants, to which the adjoining towns of Altona and Harburg add another  $\frac{1}{4}$  million. The next group of towns are all inland centres, having each rather more than  $\frac{1}{2}$  million people, i.e. they are about the size of Leeds or Sheffield. They are: Munich, the capital of Bavaria and chief city of South Germany; Dresden,





## *German Republic.*

the capital of Saxony, and Leipsic, the great trade centre of the same State ; Cologne, on the Rhine, Breslau on the Oder, and Frankfort-on-the-Main. The importance of each of these cities dates long before the industrial era in Germany : all are centres of culture, Dresden alone being not a university city, and it is owing to their long-standing importance, and their association with handicrafts, that they have attracted to themselves great modern industries, although lying away from the coal-fields. Comparable in size with Nottingham and Leicester are Stuttgart and Nüremberg, two ancient south German cities, which have likewise become associated with modern industry. Of large towns which owe their growth to the coal-fields, Essen (439,000) stands first, situated together with Dusseldorf (433,000), Duisburg, Dortmund, Gelsenkirchen, Barmen, Elberfeld, Bochum, Mülheim, Hamborn, and Crefeld on the Ruhr Basin or Westphalian coal-field, the chief seat of German industry and prosperity. Chemnitz and Plauen have a similar association with the Saxony coal field, while Saarbrücken is the centre for the Saar coal-field at present in the possession of France. All these towns have from 100,000 to 300,000 inhabitants. Other towns of importance are Hanover, standing at an important crossing-point of north to south and east to west traffic ; Magdeburg, the chief up-river port of the Elbe ; Mannheim, with on the opposite bank Ludwigshafen, and Mainz, two leading Rhine ports ; Aachen, a city of ancient importance, and now a centre of modern industry, standing on a small coal-field near the Belgian-Dutch frontier ; Augsburg, an industrial centre of Southern Bavaria ; Brunswick, the capital of the State of that name ; and Halle, a centre for the industrial region of Prussian Saxony. The secondary ports of Germany, corresponding in character to Hull and Newcastle, are Bremen, with American connections, on the Weser ; Stettin, the nearest port to Berlin, on the Oder ; Königsberg, the most easterly port, in the now-detached province of East Prussia ; Kiel, at the Baltic end of the great ship-canal ; Lübeck (like Hamburg and Bremen once a Free Hansa City), also a Baltic port, and having canal connection with the Elbe.

There is no State Church in Germany : Protestants are in the majority as regards the total population, but Roman Catholicism is the prevailing religion in the southern States. Education is general and compulsory throughout the country, and is more systematised and thorough than in the British Isles, producing a higher level of efficiency, although at the expense of independence and initiative. The proportion of students receiving university education is much higher than in Britain, namely one out of every 700 of the population. In addition, many thousands of German students are enrolled at the Technical Schools for mining, agriculture, forestry, commerce and so forth, which are very well organised and equipped.

Recent figures as to the distribution of occupations in Germany are not available, but as far back as 1907 the proportion was 50 per cent. engaged in mining, industry, commerce or the learned professions, as against 33 per cent. occupied on the land, i.e. broadly speaking, in the production of food-stuffs. With the recent rapid growth of industry, the proportion on the land has relatively declined, and although the German farmer produces more food per acre than the British farmer, the country is under the necessity of buying large quantities of food-stuffs and raw materials abroad, which must be paid for in manufactured goods. Of the total imports in

**German Republic.**

1913 (the last normal year) over three-fourths came under this category, while 72 per cent. of the exports were of manufactured or semi-manufactured products. The trade for that year amounted to £1,030 millions, or nearly £16 a head, as compared with a British trade of £1,300 millions, or £28 a head in the same year. Imports were in excess of exports by between £30 millions and £40 millions, the deficit being made up by "invisible exports" in the shape of shipping freights, banking and insurance, and money invested abroad.

According to a German official estimate, the total exports for 1920 had a gold value of £250 millions or slightly over half that of the exports for 1913, while the quantity of exports (by weight) was rather over one-fourth that for 1913. The value of the 1920 imports has not been published, but the quantity was less than that of the exports. The official index figure for the cost of living at the beginning of 1921 was 940, the corresponding figure for England being 265. Taking the published figures for May, June, July, 1921, as a basis, the trade for that year would be £465 millions (converting the paper marks at the current rate), of which £254 represents imports and £211 exports. This is only £7½ per head. Actually the figure is too low, since prices did not accurately reflect the depreciation of the mark, but the adverse balance of over £40 millions should be noticed, since it is obvious that the current view of Germany's prosperity must be erroneous. The balance of imports (other than that paid for by "invisible exports"), must be paid for by foreign currency bought with the depreciated mark.

**Position, Climate and General Physical Conditions.**

—Germany extends from 47° to 55° N., and from 6° to 23° E., and marches with the following States: Denmark, Holland, Belgium, Luxemburg, France, Switzerland, Austria, Czecho-Slovakia, Poland and Lithuania. In the north-west the country opens to the North Sea, and in the north to the Baltic, the latter seaboard being very much the longer. The British Isles interpose a barrier between Germany and the Atlantic Ocean, so that the climate is more Continental, i.e. on the whole more extreme, more stable, and drier, than in Britain. The summers are everywhere hot, though not excessively so, and the fact that the southern part of the country is somewhat elevated renders the shade temperatures there no greater than those farther north, although greater heat is experienced in the sun and in the valleys. The winter temperatures decrease from west to east, and are somewhat severe in that part of the country which lies south of the Baltic Sea, all the waterways being frozen for an average of two or three months. The rainfall occurs chiefly in the summer months, and is very moderate except on the hills and uplands, where it reaches from 30 to 60 inches.

Germany may be broadly divided into three regions—the Northern Plain, running from the frontier of Holland eastwards; the Rhine Valley and Rhine Mountains in the west; the broken hilly country stretching from the Alps northwards to Thuringia, i.e. South and Central Germany. The last named includes somewhat bleak and barren plateaus and hill ridges, and a large number of fertile and warm valleys. The rivers draining it include the Danube, which flows eastwards into Austria, and receives a great many swift-flowing affluents from the Alpine snowfields: the Neckar and Main, which follow deep zigzag valleys, and eventually join the Rhine; the Werra and Fulda, which are head-streams of the north-flowing Weser.

The Rhine River, from Basel on the Swiss frontier to Mainz, flows in



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the middle of a broad trough-shaped valley—the floor being very fertile. The Vosges and the Lesser Vosges on the one hand, the Black Forest and Odenwald on the other, form the somewhat abrupt walls of the trough, a part of which (Alsace) is now lost to France. Baden, part of Hesse, and the Palatinate are the political subdivisions of this trough region. Leaving Mainz the Rhine makes an abrupt turn and enters the gorge which it has worn through the Rhine Mountains, emerging again at Bonn, and flowing over the Northern Plain and thence through Holland. The Rhine Mountains—actually rather a plateau than a mountain region—are cool, wet and infertile, but they are trenched not only by the Rhine, but by its tributaries, the Lahn and Moselle; on their borders, too, are regions rich in coal and iron.

The continuity of the Northern Plain is broken only by the low ridges which somewhat isolate Westphalia, and by the Harz Mountains. The whole region once lay under the ice-sheet of the Glacial Age, and consequently is covered with glacial waste, in part gravelly and infertile, in part ill-drained boulder clay. Hence large areas are unsuited to cultivation and are clothed with forests or heather. Towards the south, however, richer and more tractable soils occur, and agriculture takes on great importance. The important river Elbe flows diagonally across the plain to the North Sea, while the almost equally important Oder, which drains Silesia, takes a parallel course, until at a point not far from its estuary it bends sharply to the Baltic. Such is the configuration of the Plain, however, that it has proved easy to unite the Oder by canals to the Elbe farther west, and the Vistula (now a Polish river) farther east. The Weser and the Ems, both flowing to the North Sea, are smaller rivers and of less value as waterways, but both have now canal connection with the Rhine, although not with the Elbe.

Not only on the northern plains, but also on all the uplands and mountain slopes, there are valuable forests, both of hardwoods (oak, ash, beech) and of softwoods (pine, fir, larch), covering altogether some 50,000 square miles. They are scientifically exploited under State supervision, so that the net expenditure on foreign timber (chiefly from Russia, Finland, Sweden and the United States) was only £19 millions in 1913, or little more than half that expended by the smaller population of the British Isles. Especially valuable are the forests of the Rhine Mountains, Spessart, and Odenwald, situated near the great industrial region of Germany.

**Human and Economic Conditions.**—The greater part of the land in South and West Germany is broken up into small farms or peasant holdings, which are intensively cultivated. Larger farms are found on the northern plain, and especially in the north-east, the stronghold of the Junkers. Since the Revolution there has been a decline both in the acreage under crops and in the harvests reaped per acre (although as regards potatoes and sugar-beet 1920 showed a decided improvement over 1919), and to this loss must be added that of at least  $13\frac{1}{2}$  per cent. of the cultivated area which has passed to other States. This involved a loss (apart from decreased production) of 20 per cent. of the beet-fields (chiefly in Posen), together with the rye and potato fields of the same province; and also of 24 per cent. of the vineyards (chiefly in Alsace-Lorraine) and the barley-fields of all these districts. As regards animals, 15 per cent. of the horses were bred on the territory now lost (chiefly in Posen), 11 per cent. of the horned cattle,  $9\frac{1}{2}$  per cent. of the sheep and 11 per cent. of the pigs. These figures must,



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however, be considered in relation to the loss at the same time of 12 per cent. of the population consuming animal and vegetable products.

The most productive agricultural areas remaining to Germany are the belt lying to the south-west of the Elbe, running from the Erz Gebirge to the city of Brunswick, and including the fertile Magdeburg Basin; a similar belt to the south-west of the Oder in Silesia; the Rhine Valley and the Palatinate above the Rhine gorge; and the valleys of South Germany.

Of cereal crops, **rye**, which is the staple breadstuff of the poorer classes, is the most important, and in 1919 the yield was 9 million tons, or  $\frac{3}{4}$  only of the crop of 1913. In the last-mentioned year, however, there was a considerable export, whereas in 1920 (when the harvest was even smaller than in 1919) there was an import of some 300,000 tons from the United States. Rye is grown widely on the northern plains, whereas the more exacting **wheat** is especially important in the Magdeburg Basin, in parts of Silesia, and in the Rhine and Danube valleys; the 1919 crop was  $2\frac{1}{2}$  million tons, or just half that of 1913, and it was very little greater in 1920, when, however, some  $\frac{1}{2}$  million tons were imported from the United States and Argentina. **Barley** (normally for malting) is grown chiefly in the southern States, the yield being 1.8 million tons in 1919, or again but half that of 1913; 1920 showed a slight improvement, and the import was inconsiderable. **Oats** are widely grown, and the 1919 and 1920 harvests were of about 5 million tons, against  $9\frac{3}{4}$  million tons in 1913 (which was an exceptionally good year for nearly every class of crops). An addition to the breadstuffs of  $\frac{1}{4}$  million tons of maize (chiefly from Argentina) was made in 1920, but the total supply, even bearing in mind the loss of 12 per cent. of the population since 1913, was decidedly short, for normally there was a net

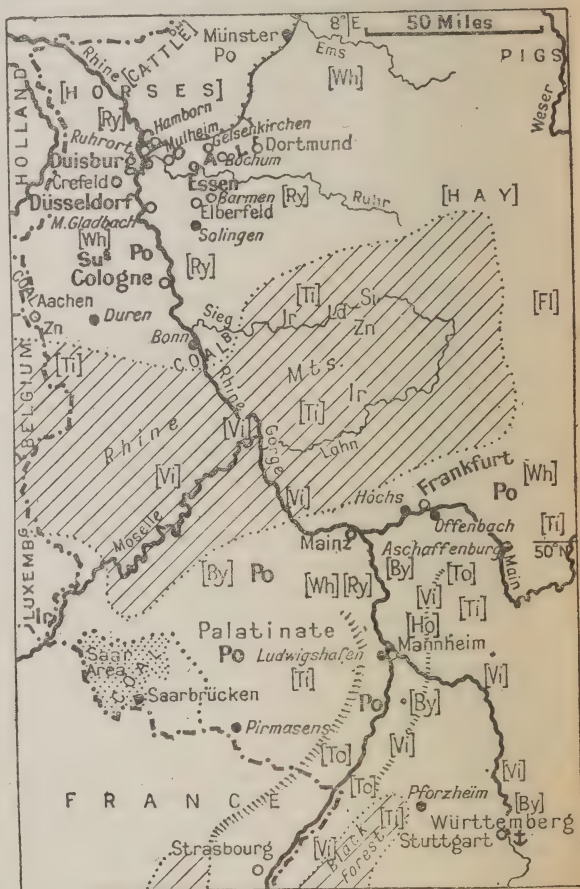


FIG. 70.—THE RHINE VALLEY.

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import of 2 million tons of wheat and one million tons of maize (the latter mainly fed to stock).

The chief root crop is **potatoes**, which are grown not only for food, but for the large-scale manufacture of *starch* and *alcohol* (chiefly brandy). The 1920 harvest was about 25 million tons—less than 60 per cent. of the pre-war yield, and it was supplemented by an import of nearly a million tons from Holland, West Poland and Denmark. The most productive areas are the Magdeburg district, Saxony, Silesia, and the Rhine valley, but the cultivation is very widespread. Even more important than the potato crop from the point of view of external trade is that of **sugar-beet**, of which about 9 million tons were harvested in 1920 as against an average of 13–14 million tons before the War. The areas of intensive cultivation are the Magdeburg Basin and Lower Silesia, and the high perfection to which the root is brought is evidenced by the fact that beetroot seed to the value of £½ million was exported to the United States in 1920. The yield of raw sugar from the 1920 crop (at 16 per cent.) was 1·4 million tons, and that of the 1921 crop is estimated at 1·2 million tons, of which part will be available for export. The export value of German sugar before the War was about £13 millions (including raw sugar £5 millions), and nearly half of the quantity sold was sent to Great Britain.

A crop of secondary importance is **hops**, grown chiefly in Bavaria and Württemberg (i.e. in the south), which yielded 3,900 tons in 1919 (a bad year); before the War the production was more than double this figure, and about 4,000 tons of hops were exported to France, Belgium and the United States, this coming partly from the lost province of Alsace. The South German hops and barley give rise to an enormous *brewing* industry, including the famous beers associated with the city of Munich. **Tobacco**, grown in the district north of Berlin and in the middle Rhine valley, yielded 23,000 tons in 1919. This is supplemented by a considerable import, which amounted to nearly 70,000 tons in 1920, a large proportion coming from the Dutch East Indies, while American, Turkish and Dominican tobacco was also bought. Bremen handles this foreign tobacco. *Vineyards* are found on the terraced slopes of the Rhine and Moselle gorges, in the middle Rhine valley (Baden), and in the valleys of the Neckar and the Main. Altogether agriculture plays a much more important part in Germany than it does in the British Isles. In the latter, more than half the cultivated area is under permanent pasture, leaving less than half an acre of arable land per head, as against one acre per head in Germany. In France, which is broadly speaking self-supplying as regards major food-stuffs, the average is 1½ acres per head.

The very considerable hay, clover and root crops of Germany support large numbers of live-stock, the *cattle* being usually stall-fed. The numbers have, however, continued to decline, owing to shortage of food-stuffs and of foreign meat supplies, the only exception being in the case of *pigs*, which increased during 1920. The most recent figures give 3½ million *horses*; 17 million horned *cattle* (of which about half are milch cows); 6·6 million *sheep* (as against 23½ millions in the British Isles); 14·3 million pigs and nearly 5 million *goats*. In addition there are some 55 million head of *poultry*. The pre-war expenditure on foreign meat was not great, lard, butter and eggs being the chief animal products imported.

The *fisheries* of Germany are not very valuable, the pre-war catch being



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worth only one-tenth that landed on the coast of Britain. The quantity landed in 1919 was about 10 per cent. below the normal, two-thirds coming from the North Sea, and one-third from the Baltic Sea. Fresh and salt herrings are imported on a large scale from Norway.

The mineral wealth of Germany consists chiefly of **coal**, the bulk of the iron ore supplies being lost.

The leading coal-field is that in the Ruhr basin—the Westphalian coal-field—lying on the right bank of the Rhine, and on the northern flank of the upland mass described as the Rhine Mountains. This field produces 60 per cent. of the total output. Next in importance was the Upper Silesian coal-field, lying on the Polish frontier, and assigned partly to that country in 1921, which produced 23 per cent. of the total, while the Saar coal-field, which is in the hands of France until 1933, produced 6–7 per cent. Thus the Saxony coal field and the small fields of Lower Silesia, Aachen and Bonn together account for only 10 per cent.

In 1913 the total hard-coal production was 190 million tons, a further 11 million tons was imported, and 44 million tons exported, leaving for home use a total of 157 million tons. In 1920 140·7 million tons were produced, from which the 9·4 million tons from the Saar basin must be deducted, leaving 131·3 million tons for Germany. Assuming a 12 per cent. loss of population, and a uniform coal consumption, 144 million tons should satisfy the present needs of the country: actually, however, the territory lost was mainly agricultural and not industrial, and consumed relatively little coal, so that a real shortage is experienced, and this is gravely increased by the enforced delivery of 2 million tons monthly to France and Belgium under the Reparations Scheme. The Upper Silesian award of October, 1921, places fields producing 17 per cent. of the total output under Poland, i.e., German resources are further diminished by 20–30 million tons annually.

To the resources of hard coal must, however, be added the large output of the lignite beds, which have been more systematically worked during and since the War. The chief lignite area is the region lying on the left bank of the Elbe and extending through Altenburg, Leipsic, Halle and Brunswick, already described as of great agricultural importance. From this region over 60 per cent. of the total output is obtained. In addition there are important beds in the Rhine Valley near Bonn, producing over 25 per cent. of the total, while there are smaller fields in Bavaria and Lower Silesia. The total production of brown coal in 1920 was 115 million tons, against 87·2 million tons in 1913—an increase of over 30 per cent. Taking the coal equivalent of lignite at  $\frac{3}{4}$ , this gives an additional 18 million tons of coal to the total resources of the country, when comparing the 1920 and 1913 figures.

The increased use of lignite has involved a modification of industrial plant, and a recent questionnaire showed that 50 per cent. of the sugar factories and refineries (which are largely situated in the chief brown coal area) had been adapted to lignite firing.

The output of *coke* for 1920 was 26 million tons (as against about 20 million tons in the British Isles), nearly all the valuable by-products being recovered. Briquettes from coal reached a total of  $4\frac{1}{2}$  million tons, and from lignite a total of 24 million tons—the latter figure being an advance on that for 1913. The important coking and by-product plant of Rybnik and district has passed to Poland in 1921,



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It has been the case in Germany, as in England, that the output per miner has declined, the estimate being that in 1918-20 it was only 60 per cent. of the normal, but more recent reports suggest an improvement in this respect. This is borne out by the figures published for the first quarter of 1921, which show a marked increase over those for the same period of 1920. Should the rate be maintained, the increases for the whole year will be as follows: Coal 19 million tons, lignite 20 million tons, coke 5.6 million tons, briquettes 1.6 million tons, figures which will ease the industrial situation very considerably. The present German resources in respect of fuel for home consumption are roughly equal to those of the British Isles, but the latter country, after satisfying home demands, under normal conditions draws also an income of over £60 millions from coal sold abroad or for foreign bunkers. In 1920 Germany exported 7 million tons of coal, chiefly from the Upper Silesian coal-field, to East Poland and Austria. In the same year about 2 million tons of American coal were imported.



FIG. 71.—GERMANY: MANUFACTURES.

There are important **copper** mines in the Harz Mountains, the chief works being at Mansfeld, while there is also a small production in the Rhine Mountains. The ore mined amounts normally to nearly a million tons, from which in 1913 nearly 27,000 tons of crude copper was obtained. In 1919 the output was only about 10,000 tons. **Zinc** is also important, the chief mines being at Beuthen in Upper Silesia, which produce about  $\frac{1}{2}$  million tons of ore; there is also a small production near Aachen, and at Bergisch-Gladbach, near Cologne. The Upper Silesian frontier award has, however, placed the mines east of Beuthen in Poland, besides all the smelters and refineries, which are situated at Kattowitz and Königshütte. **Silver-lead** is mined

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with the zinc, *nickel* in the Rhine Mountains, and *pyrites* (for sulphuric acid) in many districts, besides small quantities of *wolfram* and *graphite*. These home supplies of ore form the basis of an important smelting industry, being supplemented by imports from Sweden, Austria, Czecho-Slovakia, the Near East, and Spain.

Rock **salt** is obtained at Clausthal in the Harz Mountains, and near Halle, the quantity being over 2 million tons, of which half is exported. Between the Harz Mountains and Elbe are the world-famous Stassfurt deposits of **potash** salts, of which Germany (by controlling the price) holds a virtual monopoly. The output in terms of pure potash ( $K_2O$ ) is about 1 million tons, of which 60 to 70 per cent. is consumed in Germany, largely as chemical manure, only some 4 to 5 per cent. being employed in industry. The output from the Alsatian mines transferred to France is only 10 per cent. of that of the German mines, and as it appears that a working agreement with respect to prices will be entered into, the monopoly will not be broken. The German reserves are ample for an indefinite period.

It is with regard to **iron** ore that Germany is now seriously crippled. Three-fourths of her ore supplies came from the famous minette fields of Lorraine, and another 5 per cent. from the similar fields in Luxemburg. The output for 1913 was  $28\frac{1}{2}$  million tons, of which only  $5\frac{1}{2}$  millions came from territories remaining in 1920 to Germany. The Siegerland, Lahn, and Dill mining areas, in the eastern block of the Rhine Mountains, account for 3 million tons, the Peine-Salzgitter district, west of Brunswick, for 1 million tons, Upper Silesia for the greater part of the remainder. All the Upper Silesian mines, however, passed in 1921 to Poland. The Peine-Salzgitter deposits are highly manganiferous, and plant has been erected which would allow of an annual output of 8 million tons for this area.

With ample supplies of coke and ore the German **iron** and **steel** industry was based on the mass production of pig-iron and raw steel, the pre-war figures for these products being 13 million tons and 18.9 million tons respectively, i.e. about twice the output of the British Isles. Roughly 40 per cent. of the pig-iron production and 30 per cent. of the steel production was in the Luxemburg-Lorraine-Saar areas, and hence the present output in German territory should be 7.8 million tons pig-iron, and 13 million tons steel, provided ore could be chiefly brought as before to the Rhineland-Westphalian and Upper Silesian industrial areas where the furnaces are situated. Actually in 1920 some 5.5 million tons of pig-iron and 7.8 million tons of steel only were produced, but the import of Scandinavian and Spanish ores should improve the situation. Dusseldorf, Essen, Ruhrort and Duisburg have the greatest number of steel furnaces, while electric furnaces (total for Germany 64) are most numerous at Remscheid and Bruchhausen, near Solingen. Nearly two-thirds of the blast furnaces, foundries and rolling mills of Upper Silesia are now in Polish territory.

Every branch of the steel industry is well developed, and there is normally a large export trade in steel sections and girders, rolled sections and plates, rails, tubes, wire rods and nails, hollow metal, tin-plate, ferro-alloys (the last from Crefeld, and the neighbouring village of Willich, and from Frankfort). About  $\frac{1}{2}$  million tons of these various products were exported to Holland in 1920, that country taking two-thirds of its total supplies from Germany. Great engineering workshops are found, not only in the industrial areas of Rhineland-Westphalia, Saxony and Upper Silesia, but in all



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the large towns and seaports which have been already enumerated (pp. 237-9). It appears to be German policy to concentrate in future upon the output and export of finished products—including textile, mining and agricultural machinery; engines of all types; rolling stock; motor-cars and trucks; cranes; machine tools; electrical goods, and so forth. Holland, Spain, Sweden, Switzerland and Great Britain are all buyers of such goods, while Rumania, Bulgaria and Russia, almost destitute of manufactures, are again appearing in the market. Germany is particularly the rival of Great Britain in the home (British) market, and in Europe, owing to the cheapness of her metal goods, e.g. Solingen and Tuttlingen, the cutlery centres, undersell Sheffield, and Pforzheim rivals Birmingham as regards cheap jewellery. Württemberg is the centre for small metal wares. Hollow-ware, enamelware and aluminium ware are all lines which Germany markets very successfully abroad. Germany is paying increased attention, however, to overseas markets, particularly those of Brazil and Argentina, where are many of her nationals, and those of the Dutch East Indies and the Far East generally.

As regards *shipbuilding*, Germany was practically self-supplying before the War, the principal yards being at Stettin, and the total launchings about  $\frac{1}{2}$  million tons. Lübeck, Kiel, Hamburg and Bremen also have shipbuilding yards, and renewed activity is reported, chiefly in the building of coasting and fishing vessels, although in January, 1921, Hamburg had twenty-eight Transatlantic steamers under construction.

The textile industries of Germany are very important, that of **cotton** ranking first. The Alsatian cotton spinning, weaving and calico printing centre has reverted to France, leaving Germany the poorer by  $1\frac{3}{4}$  million spindles, but about 9 million remain. The leading manufacturing district is Saxony, with Chemnitz (for hosiery), Plauen (the rival of Nottingham), and Zwickau as the most notable towns; next in importance is Westphalia, with München-Gladbach (for yarns), Barmen (for haberdashery), and Elberfeld, largely engaged in the industry; there are also a considerable number of weaving sheds in Silesia, e.g. at Reichenbach, and a few in South Germany, e.g. Augsburg. The pre-war consumption of raw cotton in Germany was some  $1\frac{3}{4}$  million bales, costing £30 millions (as against  $3\frac{1}{2}$  million bales in Great Britain), and supposing that a quarter of a million bales went to Alsace, the present requirements of the Republic would be  $1\frac{1}{2}$  million bales. Of this quantity only 527,000 bales were imported in 1920, so that the mills were on short time. Some £5-6 millions was spent annually before the War on foreign, chiefly British, yarn. Bremen is the German cotton port, and now that overseas sailings are fully re-established, it is in a position to handle all the cotton that the factories require, four-fifths of this coming from the United States. The so-called "paper-yarn," invented and manufactured during the War, has still a good market, being employed for carpets, string, and shoddy clothing. A certain quantity was even bought by British carpet makers in 1920. The export of cottons in 1920 was valued at £9 millions, as against £20 millions in 1913. The chief items in the latter year were piece goods £7 $\frac{3}{4}$  millions, laces and embroideries £4 millions, hosiery £3 $\frac{3}{4}$  millions, fabric gloves and knit goods.

The **woollen** industry is on about half the scale of the cotton, the mills being scattered through Saxony, Thuringia, Silesia and South Germany, and at Aachen. The bulk of the raw wool is imported, the value being £18 millions in 1913. Owing to excessive prices, buyers were holding back in



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1920. The export of woollens in 1920 was valued at £6½ millions, against £10 million in 1913, of which £1½ millions was to Britain.

The **silk** industry is more important than that of the British Isles, the chief centre being Krefeld in the Rhine Province, which makes silks and velvets, while Berlin also makes velvets. Natural silk has been short in supply, but the country is self-supplying as regards artificial silk. The export of silks and mixed silk fabrics in 1920 was valued at £8½ millions, against nearly £10 millions in 1913.

The **linen**, hemp and jute industries are carried on on a relatively small scale in the chief textile areas, and at Bielefeld in Westphalia, and considerable effort was made to increase the home supplies of coarse fibres during the War. Normally £4-5 millions is spent on Indian jute, and £3½ million on flax and hemp. The latter is now brought from Italy instead of Russia. The total export of textiles in 1920 was worth approximately £31 millions, as against £40-50 millions in 1913.

The **chemical** and **dyestuffs** industry is one in which Germany has long been pre-eminent, the country possessing large supplies of basic materials in the shape of potash and other salts, and the by-products of the coking ovens. The original discovery of coal-tar dyes was made by the English chemist Perkin, but it was not followed up in that country. Synthetic indigo, on the other hand, was a German discovery. The chemical industry occupied 180,000 workers in 1913, of whom 60 per cent. were in the Rhine basin, between Ludwigshafen (the Badische-Anilin and Soda-Fabrik) and Essen. The Oppau factories, making nitrate products, were destroyed by explosion in the autumn of 1921. There are huge works at Leverkusen, near Cologne, and important factories also at Elberfeld, at Hoechst-on-the-Main, and at Frankfort-on-the-Main. This region is, of course, situated in proximity to the coking ovens. A second region of importance is that in which the salts are produced, viz. the middle Elbe basin, notable centres being Merseburg, Schönebeck and Stassfurt. There are also large chemical works in Silesia, and at Munich and Burghausen in Upper Bavaria, where Alpine water-power is available. Not only in respect of heavy chemicals, fertilizers and dyestuffs is Germany pre-eminent, but also in respect of pharmaceutical products and laboratory materials, in which a high degree of purity is required. The pre-war export of chemical and pharmaceutical products was valued at nearly £50 millions, and in 1920 it again reached a total of £35 millions, it being noteworthy that the British Isles and the United States were leading buyers.

The **pottery** and **glassware** industries, depending largely upon chemicals and chemical research, are naturally important in Germany, and are carried on in very many districts, notably in the Central German Uplands, including Upper Franconia, the Upper Palatinate and Thuringia, where, at Jena, the finest laboratory glass is made. Window and plate glass is made in the Saar district, and watch-glasses, formerly made in Alsace, are to be made in Halle.

It is the glass-industry that is the more important as regards external trade, glass-bottles, glass-beads, lamp-chimneys, table and fancy glass, and metal-filament lamps being exported in large quantities. The value of these was £5¼ millions in 1920, as against £5-6 millions in 1913. Great Britain and the United States are important buyers of German glass and porcelain.

**Paper** is manufactured on a large scale, the well-managed forests supplying sufficient raw material under normal circumstances. The mills are

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therefore usually situated on the margins of the wooded uplands, where both wood pulp and clear water are available. For example, Düren, between Cologne and Aachen, is an important centre, and there are several mills at Aschaffenburg, standing at the foot of the Spessart. The supply is sufficient for home consumption, and furnishes an important minor export, valued at £10 millions in 1920, roughly the same figure as in 1913, although when such comparisons are made, the rise in prices must be borne in mind.

The **leather** industry is carried on on a large scale, great quantities of hides and skins being imported, while dressed leather (including glacé leather, sole leather, and patent leather) is exported. The export of finished leather goods is not very great, it includes saddlery, harness and fancy goods.

Pirmasens, in the Palatinate (Pfalz), is the chief centre for boots and shoes (mainly for German consumption), and Offenbach, in Baden, for fancy leather goods, of which 75 per cent. went abroad.

Another notable industry, furnishing a considerable export trade, is that of *toys*. This has developed from a peasant handicraft carried on in remote or poor regions, and is centred in the hilly districts of Central Germany, notably at Nuremberg, in the Erz Gebirge, and in Sonneberg, Thuringia. *Musical instruments* are also a German speciality, there being a very large home demand, while there is a flourishing export trade in pianos. *Clocks* and *watches* are made in the Black Forest and elsewhere. Optical, astronomical, geodetic and mathematical *instruments of precision* of the best quality come from the German makers who lead in this industry, working in close co-operation with the leading scientists. The chief factories are consequently found in the University towns.

The European **fur** industry centres in Germany, Leipzig being the principal market, rivalled only by London. The washing, dressing, machining and dyeing of foreign and overseas skins is carried on, these coming from all parts of the world, including normally Russia and Siberia. The same city is also a noted centre for *printing* and *lithographic work*—industries for which Germany has a very high reputation. Lithographic stones are the monopoly of a quarry near Solenhofen, Bavaria.

Germany is a very large importer of *colonial wares*, either directly or through London (Britain sent approximately £20 millions worth of foreign and colonial produce to Germany in 1913, while in 1919 the figure was £8½ millions). These wares include coffee and cacao (Hamburg being the chief port of entry), oil seeds and rubber. Much of this produce was diverted to New York during the War, but with the restoration of the Hamburg shipping services, the trade will doubtless flow back into the old channels. The trade in **oil-seeds** is one of the most important. The 1913 import was valued at nearly £27 millions, linseed (from Argentina and India) taking the first place, followed by copra and palm oil, while smaller consignments were bought up of ground-nuts, rape and sunflower seed, cotton seed, sesame and soya beans. A considerable *soap* industry was built up on the basis of this import (the cessation of supplies being keenly felt during the War), and there was also an export trade, valued at £3½ millions, in refined vegetable oils. **Rubber** imported in 1913 was valued at £6 millions, the net import (deducting re-exports) being 16–17 thousand tons, but the export of rubber goods, including tyres and goloshes, is not great.

A feature of German industrial life since the War has been the formation of large industrial groups by which a large number of interdependent indus-



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tries are brought under a single management. The Sichel Industrial Group is typical, having as its object the production, working up and merchandising of iron and metals, chemical and metallurgical products, to which end it has obtained a controlling interest in lignite mines, iron-ore deposits, chemical works both in Germany and abroad, iron works, Rhine shipping, and so forth. Herr Stinnes, the shipping magnate, has control of a similar range of enterprises on a still vaster scale, and the advantages to German industry of these mergers are obvious, including as they do the control of fundamental raw materials obtained in foreign countries. The Styrian iron industry has been rehabilitated by Germany, iron-ore deposits have been acquired in Brazil, industrial enterprises in Russia have been taken over, while German factories are being built in Argentina and the Dutch Indies. The shipping companies which were required to hand over their fleets under the Treaty conditions are working the lines for their new owners. Although the country has been deprived of material resources, German skill and business ability remain unimpaired, and are an asset of first importance.

**Trade Relations.**—The main point of importance with regard to the direction of German trade is that, as regards three-fourths, it is with Europe, although the severing of overseas connections during the War brought the proportion up in 1920 to over four-fifths. About  $7\frac{1}{2}$  per cent. of the extra-European trade is with the United States, but in this market before the War Great Britain sold £5 millions worth more of goods than did Germany. Only to the extent of 17 per cent. of her total trade, or say goods the value of £70–80 millions, did Germany ever compete with the British Isles in respect to tropical and colonial markets. In 1913, however, Great Britain was herself Germany's principal customer, taking 14 per cent. of her goods, of which import something like £70 millions represented manufactured goods. In return British goods (not including re-exports) to the value of only £40 millions went to Germany (largely owing to tariff restrictions). On the other hand, German purchases in tropical and colonial markets are greatly in excess of her sales there, e.g. in 1912 purchases from British India of essential raw materials—oil-seeds, hides, jute and cotton—were valued at over £26 millions, and sales there amounted to only £5 millions. Previously to the War, Austria-Hungary ranked next to Britain as a market for German goods, taking 11 per cent., of the total, France was third, taking  $7\frac{1}{2}$  per cent., the United States fourth, and the Netherlands fifth (nearly 7 per cent.). The latter country stood first in 1920, taking 21 per cent. of the total (which, it will be recalled, was only one-fourth the pre-war total as regards quantity), but undoubtedly considerable quantities of German goods have been re-exported as of Dutch origin, owing to the prejudice against Germany. Altogether neutral nations took half the German export of 1920, and the Allies  $15\frac{1}{2}$  per cent. In the first eight months of 1921, France bought goods to the value of £28 millions from Germany, or over 20 per cent. of the total exported.

Although they offer individually but small markets, the Latin American countries are again receiving careful attention from Germany, and it is significant that in the first six months of 1920 she marketed goods in Mexico to a greater value than did Great Britain in the same period.

The policy of Germany as of Great Britain must be to concentrate on the production and marketing of such classes of goods as demand the highest degree of skill, efficiency and organizing ability in the producers, since neither



## German Republic.

country has the vast material resources of the United States, or the mass of cheap labour of Japan and the Far East. Hence competition between the two nations must become even keener, especially in British and European markets. The German Government is taking steps to foster export trade, and to assist in the establishment of new markets, especially in the Near and Far East, while higher tariffs aim at the exclusion of foreign manufactures. Such a policy involves very high prices to the home consumer.

As regards European trade, Germany has the very obvious advantage of position, marching as she does with no fewer than ten different States, lying on the great through routes to the east and south-east, and having a Baltic seaboard from which to develop trade with five other States bordering that sea. On the State-owned railways, freights have been adjusted so as to favour home production, and a further asset is the useful system of internal waterways. In 1912, 93 million tons of goods were carried (as against 30 million tons on British inland waterways), of which 40 million tons crossed the frontiers, mainly going in and out of Holland by the Rhine. It is on this river that the traffic is greatest, since vessels of over 1,000 tons can ascend as far as Mannheim, an enormous volume of traffic being handled at Duisburg, the port for the Ruhr coal-field and industrial region. Next in importance is the Elbe system, running from Hamburg, past Magdeburg and Dresden into Czecho-Slovakia: on this waterway vessels of 400-1000 tonnage can ply. Lübeck is linked with it by the Trave canal. The Mark canals, uniting the Oder and Elbe and serving Berlin, stand third as regards volume of traffic, while the Oder system (from Stettin to Silesia), and the Weser-Ems-Jade system (including the Dortmund-Ems Canal) stand fourth and fifth respectively. There is no link between the Elbe and the waterways farther west, while the canals between the Weser and Ems, and between the Ems and Rhine respectively, take barges under 400 tons only, as does the Main-Danube canal. The latest available figures (1917) show a tonnage of only 40 million tons carried during the War, of which  $8\frac{1}{2}$  million tons crossed the frontier. The figures for the Kiel ship canal have not been included: it carried 16,000 ships between the Baltic and North Seas in 1919, of which 15,000 were German, the total tonnage of ships being  $3\frac{1}{2}$  millions. The figure for 1914 was 34,000 ships of a total tonnage of nearly 6 millions. Whereas the water-borne traffic of the Rhineland-Westphalian district goes to Rotterdam, much of the rail-borne traffic normally goes to Antwerp, which is a competitor of Hamburg. Under the peace treaty a large canal is to be constructed linking Antwerp with the Rhine at Ruhrort, which will give a further advantage to Antwerp.

**General Information.**—The unit of currency in Germany is normally the gold *mark* of 100 *pfennig*, worth  $11\frac{3}{4}d.$ , or 20·43 marks to the pound sterling. The standard of value is gold. The Imperial Bank issues notes, and since 1914 Treasury Notes and Loan Bank Notes have also been issued, the total paper in circulation in 1920 being 80 milliards of marks, constituting the sole currency. Private bank-notes are issued by the Baden, Bavarian, Saxon and Württemberg Banks. The metric system of weights and measures is in general use.

Mails reach Cologne in 24 hours, and Berlin in 30 hours. There are British Consuls-General at Berlin, Cologne, Frankfort-on-Main, Munich and Hamburg, and Consuls at Bremen and Leipzig.

*Note.*—In this section values of German post-war trade have been reck-

## **Gilbert and Ellice Islands Colony.**

oned in *gold* marks, and the latter have been expressed in sterling at the normal rate of 20m. = £1, i.e., the depreciation of the mark has been allowed for.

## **GIBRALTAR**

**Area, Population and General Conditions.**—Gibraltar is a British Colony, administered by a Governor, who is also in command of the Garrison. It has an area of  $1\frac{1}{8}$  miles, and a civil population of about 16,000. There is considerable congestion, since no further housing accommodation can be provided. Immigration is forbidden, and emigration is encouraged. No statistics of trade are available, but since the peninsula is entirely unproductive, all necessities and luxuries for the civil population and for the garrison must be imported, while as between 5,000 and 6,000 vessels call at Gibraltar annually there is a large trade in ships' stores, and in luxury articles for travellers. Hence the total imports run into several millions. Over a million tons of bunkering coal was disposed of in 1920. Tobacco and cigarettes are manufactured, and there is an active industry in connection with the repair of both hulls and machinery of the vessels calling at Gibraltar, besides the building of small boats, lighters and launches.

It is a high, rocky peninsula at the southern extremity of Spain, approximately in  $36^{\circ}$  N. latitude. The climate is dry and hot in summer; mild and wet in winter. The native-born population are Spaniards, and the Spanish language, currency (based on the *peseta*), weights (the *arroba* of 26 lbs.) and measures are in unofficial use. The official language, currency, weights and measures are English, and Treasury notes are in circulation. The chief banking establishments are the Anglo-Egyptian Bank, and the Credit Foncier d'Algerie et de Tunisie, both with London offices. Mails reach Gibraltar daily in three days. Gibraltar is also an important cable station for all parts of the world.

## **GILBERT AND ELLICE ISLANDS COLONY**

**Area and Population.**—The Gilbert and Ellice Islands Colony was formed in 1915, in place of the former British Protectorate. The total area of the numerous islands and islets is about 200 square miles, and the native population is approximately 30,000. In addition there are about 500 Europeans, and a considerable immigrant coolie population in the employ of the company exploiting Ocean Island.

**General Physical Conditions.**—These islands are of coral formation, and are consequently very low-lying. The Gilbert group is situated on and about the Equator, the Union group (Tokelau) in about latitude  $10^{\circ}$  S., and the Ellice group between the two first named. These three groups are between longitude  $170^{\circ}$  E. and  $170^{\circ}$  W. of Greenwich, the date in the Gilbert and Ellice Islands and in Ocean Island being one day later than that in the rest of the colony. Ocean Island lies to the west of the main groups, just south of the Equator, while Fanning and

## Gilbert and Ellice Islands Colony.

Washington Islands lie north-eastwards, and are north of the "line." Their position ensures to all the islands a very warm, equable climate, with sufficient rainfall. The coco-nut palm is the most important tree, while screw pines (pandanus), bread fruit, taro and yams supply food for the native cultivators.

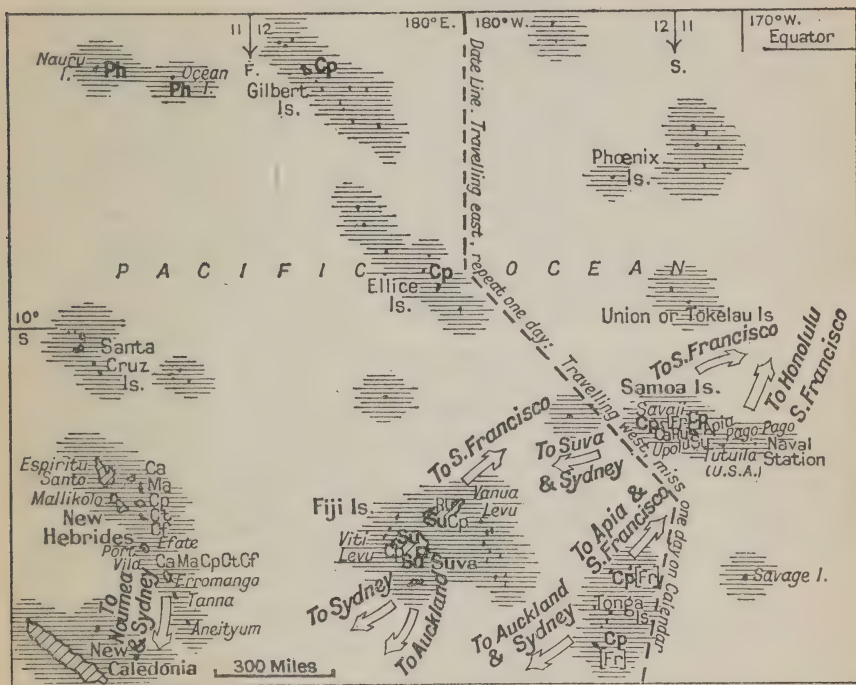


FIG. 72—GILBERT AND ELLICE ISLANDS, SAMOA AND NEW HEBRIDES.

**Human and Economic Conditions.**—The islands are commercially undeveloped, although the natives sell **copra** to European and Japanese traders in return for cotton goods, matches, hardware, and similar articles for domestic use. An exception is Ocean Island, where the **phosphate** industry is very thoroughly developed. Here, as in many parts of the Pacific, the deposit of bird guano on coral has led to the formation of phosphate rock (phosphate of lime). This is dug or blasted by Chinese and Japanese coolies, and by islanders, under the supervision of British and Australian foremen and managers. Nearly 80 miles of light railway carry it to the jetties whence it is loaded. The output of 150,000 tons annually before the War was diminished owing to the lack of shipping, but the deposits appear practically inexhaustible, and the immediate market in the United States and Australasia ensures the prosperity of the industry.

The Resident Commissioner for the colony has his head-quarters at the well-appointed settlement on Ocean Island.



## GOA

See **Portuguese India**, p. 398.

## GOLD COAST

**Area and Population.**—The Gold Coast, Ashanti and the Northern Territories form a British Colony and Protectorate, administered by a Governor. The total area is 80,000 square miles (two-thirds that of the British Isles), and the population rather more than  $1\frac{1}{2}$  million (chiefly negroes), including under 3,000 Europeans and Americans—officials, missionaries and traders. The largest town is Coomassie, the capital of Ashanti, with 24,000 inhabitants. Accra, the capital of the Gold Coast, has 19,600, Cape Coast Castle 11,000. The total foreign trade in 1917 was £10 millions, and in this year the imports were very much below normal. The average for 1919–20 was £23 millions, imports and exports balancing. These were years of abnormal prices, and a conservative average figure would be £18 millions

or £12 a head, which is greatly in excess of the per capita trade of Sierra Leone or Nigeria, or of the French and some-time German West African Colonies. A temporary stagnation in the cacao trade is at present (1921) causing trade depression. European missionary and educational work is very active, and a large proportion of the "town" natives speak English and adopt more or less English ways of life.

**Position, Climate and General Physical Conditions.**—

The Gold Coast and adjacent territories stretch from  $5^{\circ}$  N. to  $11^{\circ}$  N. latitude, i.e. they lie in the north equatorial belt, and have a uniformly high temperature through the year. The rainfall is very heavy, but diminishes towards the north and east, being brought by the south-west winds from the Gulf of Guinea. During the dry season (December–March) the harmattan, a relatively

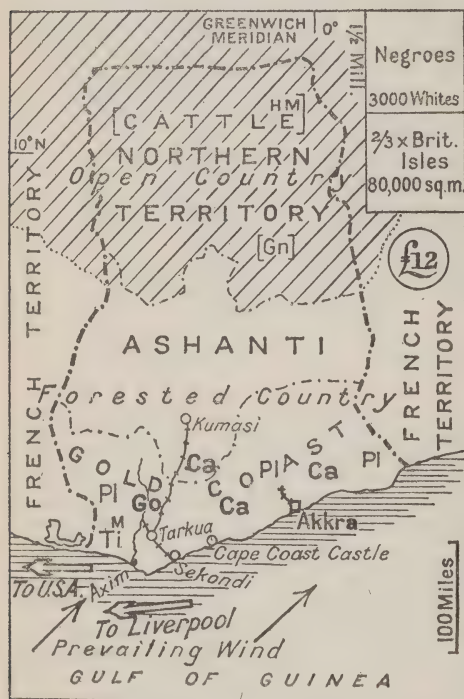


FIG. 73.—GOLD COAST.

cold, dust-laden and very dry wind, blows from the interior, but scarcely reaches the coastal belt. The country is hilly or undulating, except for a

## Gold Coast.

narrow, low coast plain stretching eastwards from Accra, and a similar low belt on the western frontier. Accra is specially unhealthy, but in the less humid interior the climate is more tolerable for Europeans.

Primeval forests, rich in valuable trees and creepers, cover a large part of the country, especially in the wetter west, but the northern territories are clothed with an open park-like savannah.

**Human and Economic Conditions.**—The people of this region are negroes, who engage in agriculture, with subsidiary cattle and other stock-rearing in the north, outside the tsetse fly belt. The plough is unknown, but the climate and soil conditions are so favourable that rich harvests are reaped by the most primitive methods: plantains, ground-nuts, yams, and millets affording an abundance of food. The last twenty years has seen the growth of an extensive trade in **cacao**, grown under European supervision and instruction by the native farmers. The Gold Coast is now the largest producer of this commodity in the world, the output exceeding 90,000 tons, worth over £3 millions. The accumulated stocks sold in 1919 were valued at £8½ millions. There is some fear of overproduction and of disease, since the natives are not sufficiently enlightened to guard against, or to deal with, such dangers.

The climate is suited to plantation **rubber**, but although the industry has been started, it has as yet reached no great development. There is an abundance of wild rubber in the forests, and the total export at one time exceeded £½ million, but this figure has been greatly reduced. War conditions also seriously reduced the output of **palm kernels** and **palm oil**, and of lumber, principally **mahogany**, which are among the abundant products of the forests, but now that the work of improving means of transport has again been seriously taken in hand, these industries in common with others will undoubtedly expand. Dunkwa and Axim are the centres of the timber trade, in which Americans are now interesting themselves.

The chief mineral wealth of the colony is in **gold** dust, of which the average export has latterly been over £1½ millions annually, i.e. it is second only in importance to cacao. Recently **manganese** has been discovered and worked (33,000 tons in 1919), and the mines promise to be important. In the undeveloped Northern Territory the more open country favours *cattle-rearing*, combined with the growing of grain and *ground-nuts* for food. This region might supply the whole colony with meat.

**Trade Relations.**—A railway runs from the port of Sekondi to Coomassie, and is being rapidly extended along the coast to meet the line from Accra. At present all goods must be lightered, often through heavy surf, but Sekondi harbour is to be developed, and should become the foremost British deep-sea harbour in West Africa.

A large proportion of the imports, especially cotton piece goods, spirits, coal and provisions, come from the United Kingdom, but the War has led to a great increase in the direct trade between West Africa and the United States. Hardware, machinery, motor-cars (the Gold Coast has a well-developed road system), tools, oil, are among the imports from the States, but the greatest increase (practically tenfold) has been in direct exports to America, particularly of cacao and hardwoods. American firms have established themselves along the coast, and part of this increase represents merely a transference of trade from the hands of British merchants, who

did West African business with America via Liverpool. The establishment of French traders in the neighbouring French colonies, which have frequent direct communication with the mother country, has made it easy for France to develop a considerable trade in miscellaneous manufactures and provisions with British West African Colonies. Germany, too, had an important place before the War.

The prosperity of the native farmers is raising their standard of living, and there is a growing demand for soap, cigarettes, scent, fancy goods and luxury articles such as bicycles, motor-cycles and gramophones.

**General Information.**—The Bank of British West Africa and the Colonial Bank have branches throughout the colony. British sterling is the legal currency, and silver can be tendered up to any amount. There is a special West African silver currency, and local currency notes. French, Spanish and American gold coins are also legal. Mails take two weeks or more in transit. The Comptroller of Customs at Accra also acts as Imperial Trade Correspondent.

## GREAT BRITAIN

See **British Isles**, p. 84.

## GREECE

**Area and Population.**—The Kingdom of Greater Greece, which includes, besides Old Greece, the territories of Southern Epirus, Macedonia, Thrace, the Ægean Islands and Crete, has an estimated area of 56,000 square miles, and a population of 6 millions. In addition, Greece has been appointed Mandatory Power for Smyrna and the district behind that port (the greater part of the Turkish vilayet of Aidin), this Asiatic Territory covering some 8,000 square miles and having a population of between  $1\frac{1}{2}$  and 2 millions, of whom a large proportion are Greeks. Thus the political boundaries of Greece now roughly coincide with the boundaries of the territory occupied by people of the Greek race, who spread from the islands of the Ægean Sea to the marginal lands round about. The Greeks have now a strong commercial position in the Near East, and their opportunities for carrying on their traditional occupations of traders and merchant seamen are greatly enlarged. Figures for the total trade of the present State are not available, but taking it at a conservative estimate as £8 a head, the total would be between £60 millions and £70 millions sterling. This would include Smyrna, which, as the principal port of Asia Minor, handles goods in transit to and from the interior. Salonica, too, is a port for Serbian as well as for Greek trade. The capital of Greece, Athens, has a population (including its outport, the Piræus) of 300,000, while Smyrna has an equal number, and Salonica, the third city, in Macedonia, is about half as large. Other considerable towns are Adrianople (83,000), the centre of Thrace, Patras, the second port of Greece Proper (38,000), Corfu and Volo (Old Greek ports), Canea and Candia (Cretan ports), Kavalla (the famous tobacco port) all with between 20,000 and 30,000 inhabitants. Apart from



## Greece.

the leading ports, Greece has no towns that rank above mere market centres, for the people are engaged in agriculture and commerce, and manufacturing industries are negligible. The majority of the inhabitants belong to the Greek Orthodox Church, but there is a minority of Mohammedan Turks in Macedonia and Thrace, and a considerable Mohammedan population in Smyrna and district—probably numbering over 1 million, which includes some persons of Grecian race. There are also large numbers of Jews in the towns, notably in Salonica, where they are in a majority. Education is not very advanced, and though Athens has an important University, the proportion of illiterates, especially among women and girls, is high. The standard of living among the peasantry is low, and poverty has led to considerable emigration, principally to the United States.



FIG. 74.—GREECE AND SMYRNA.

**Position and General Physical Conditions.**—Continental Greece forms the southern portion of the Balkan Peninsula, and marches with Albania, Serbia, Bulgaria and the small area of Turkish Territory behind Constantinople. To the west lie the Ionian Islands (including Corfu and Zante), to the east the large island of Eubœa, the Sporades and the Cyclades and the Dodecanese (of which Rhodes remains Italian)

all lying in the *Ægean Sea*, and to the South, in the *Mediterranean Sea*, the large island of *Crete*. On the mainland of *Asia Minor* is the mandatory territory of *Smyrna*. Stretching between latitudes  $35^{\circ}$  N. and  $42^{\circ}$  N., the whole of Greater Greece enjoys the type of climate known as "*Mediterranean*," that is to say it is very hot in summer, and this season is also one of drought, while rainy mild weather characterises the winter months. Regions opening westwards, especially *Epirus* and the *Pindus Range*, have a heavier rainfall than regions opening east, while *Thrace* and *Macedonia*, being more exposed to cold winds from the east and north-east, have less pleasant winters than the lands farther south, and the liability to frost renders them unsuitable for the olive. The whole of Greece is mountainous in character, and the lowlands consist of isolated valleys, small plains, and hill-girt basins, all of very restricted area. Intercommunication between the islands and the coasts of Europe and Asia is necessarily by water, and so broken is the mainland territory by rocky promontories, and deep bays and gulfs, that here, too, communication is difficult, and the sea-ways are often the most direct routes between one agricultural centre and another.

The principal lowland is the fertile Plain of *Thessaly*, in old Greece, which opens southward to the Gulf of *Volo*; further south are the Plains of *Beotia*, where the draining of *Lake Copais* has added a rich tract to the arable land. Behind *Salonica* lie the Plains of *Macedonia* and *Seres*, drained by the *Vardar* and *Struma*, of which the former opens an important route way leading through the heart of *Serbia* to Central Europe. Further east lie the Plains of *Thrace*, drained by the *Maritza River*, and finally a series of deep fertile valleys, fringing the plateau of *Asia Minor*, form the hinterland of the port of *Smyrna*.

The chief mountain range is the *Pindus*, running southwards from *Epirus*, which after throwing off spurs to the East, continues through the *Peleponnesus* as the *Taygetus Range*, running to *Cape Matapan*, and then reappears successively as the backbone of the islands of *Crete* and *Rhodes*, and as the *Lycian Taurus* of *Asia Minor*. In *Epirus* and on the *Pindus Mountains* there are forests of oak and pine, but partly owing to the dry character of the soil (many of the hills are limestone), partly owing to careless felling of wood for charcoal, and partly owing to the ravages of goats, large areas are covered only with scrub oak, or with evergreen bushes (*ilex*, *broom*, etc.), and hence are of little value.

**Human and Economic Conditions.**—The people of Greece are in the first instance farmers, producing a surplus of food-stuffs which is capable of very considerable increase, especially in *Thrace* and *Macedonia*, where Turkish misrule and unsettled political conditions have hitherto discouraged the peasants from working their land to its full capacity. Except in the most favoured localities, e.g. *Thessaly*, the farming methods are primitive and unscientific, and owing to its hilly nature, the country does not lend itself to the use of agricultural machinery. Small holdings are the rule, but there is little knowledge of intensive cultivation, and lack of water is often a difficulty.

The climate is everywhere suited to the growth of **wheat**, which is the most important cereal crop, barley and maize being of secondary importance. Old Greece normally imported grain, in spite of the large acreage devoted to wheat, but both *Thrace* and the *Smyrna* district had normally a surplus, and as the wheat lands of *Thessaly* could be greatly extended, it is reasonable



## Greece.

to suppose that the country as a whole could be made self-supporting in this respect. A little *rice* is grown in the lowlands of Macedonia, where water is available for irrigation, but an extension of this industry is not very probable, as owing to the dwindling of the rivers during the summer drought, only a few favoured districts can be artificially watered. **Cotton** is grown in many districts, notably in Thessaly, on the bed of the former Lake Copais, and behind Smyrna, and although the output is not great, it serves as a basis for a minor textile industry of considerable local importance. Among the leading commercial crops **tobacco** is of first importance, for not only does Greece hold the famous fields of Xanthi and Gumurdjina, where the fine Turkish leaf marketed at Kavalla is grown, but there are also tobaccos of good quality grown behind Salonica and Smyrna, and in Thessaly. The total exports of tobacco—which goes to Egypt for the manufacture of “Egyptian” cigarettes, and also to Germany, Austria and the United Kingdom for blending, and for Turkish cigarettes—have a value of several millions. Ranking with tobacco as of first importance is the trade in dried fruits, including derivatives of the grape, which is widely grown. **Currants** have long been the staple of the commerce of Old Greece with Western Europe. The currant vine is very local in its distribution, the principal producing areas being the north and west of the Peloponnesus, and the southern Ionian Islands, with Patras and Zante as the chief markets. The world’s consumption of currants is limited, and as the growers have frequently been ruined by over-production, the area under vines is strictly limited, and the whole crop is bought up by a single association of merchants at a fixed price, any surplus being used for the distillation of alcohol. Hence this is not an expanding industry, except in so far as the consumption of currants can be stimulated by a publicity campaign such as has recently been attempted. Besides the currant trade, Greece now holds the first place in the production of **raisins**, since Smyrna is the centre of this industry, the manufacture of wine from the grape-vines being contrary to the Mohammedan religion. The export of this commodity from Smyrna before the War was valued at nearly £1 million sterling, and although raisins from the United States were placed on the market during the shortage resulting from the disturbance of Mediterranean trade, the industry is rapidly recovering. Smyrna also has a leading place in supplying dried **figs** of good quality, these being worth £ $\frac{1}{2}$  million, and both in the Cyclades and in the Peloponnesus there is a large output of figs, which although of inferior quality, and hence fetching a much lower price, are sent abroad in considerable quantity, the chief market and port being Kalamata in the extreme south. There is also a **sultana** industry, which is growing up in the districts where the currant vine has been destroyed. The *wines* of Greece, though abundant in quantity, are not of high quality, and are mainly consumed within the boundaries of Greater Greece or by Greeks abroad. *Must* is, however, sent to Great Britain, and *brandy* is distilled from the surplus currant crop.

The **olive** is widely grown in the valleys and islands of Greece Proper, where the trees do not suffer from frost, and the output of olive-oil (over 30 million gallons) is more than sufficient for local needs. The oil is of excellent quality, but the methods of refining are crude, and in consequence the export trade in oil is not so valuable as should be the case.

**Citrus fruits**, including citrons, mandarins, oranges and lemons, do well in the southern valleys and in the Cyclades. Fresh, they find a market

**Greece.**

in neighbouring countries, while citrons packed in brine are sent to Great Britain and America. *Nuts* and almonds also find very suitable climate conditions, as does the mulberry tree, so that some *silk* is produced. The chief centres are Thessaly, Epirus, the Peloponnesus, Macedonia and Thrace, and in the two last-named districts the industry might be fostered with advantage.

Special products of the Smyrna district are **opium**, **liquorice** and **valonia**—the last named a tanning extract obtained from the acorn cups of a Levantine oak.

The dry summer and the hilly nature of the country are unsuitable to cattle-breeding, and outside the Plains of Thessaly these animals are few. Donkeys are employed as draught and pack animals, and also mules, since many of the mountain roads are unsuited to wheeled traffic. The most important animal industry is **sheep** breeding, the flocks, which number about 5 millions, being led up into the mountains in summer, and down to the plains and valleys in winter. The shepherds are usually Vlachs, an indigenous people of different racial origin from the Greeks. *Goats* are commonly kept by the peasant-farmers to provide milk and cheese, although they do a great deal of damage to trees as they browse on the hill-sides. *Pigs* are more important in the Epirus and Macedonia, where there are oak and beech woods.

The **mining** industry of Greece is of considerable importance, although the output fluctuates greatly according to the state of the market, all the ores being shipped abroad. The Lavrion district, to the south-east of Athens, produces **iron**, lead and zinc, and iron ore also comes from Seriphos, one of the Cyclades. **Chrome** iron ore comes from Thessaly, and the island of Naxos is an important source of **emery**. The Chalcidice peninsula is likewise rich in minerals, including iron, manganese, antimony and arsenic, while at Floriana, west of Salonica, **oil-wells** have been sunk, which are said to be promising. There is very little coal, but some **lignite** is mined. The lack of local fuel has contributed to the rapid destruction of the mountain forests, of which both the direct and indirect consequences are serious. The Government is therefore taking forest administration in hand. The **marble** quarries of Athens have long been famous, and the industry in building and ornamental stones, as well as in minerals proper, is capable of expansion, if further foreign capital is forthcoming.

The industries of Greece are of local importance only, with the exception of the flourishing manufacture of Turkey **carpets** in Smyrna and its neighbourhood. Raw wool is obtained from Anatolia, and the cotton fabric on which the carpets are made is spun and woven locally, while the dye-stuffs, too, are partly produced on the spot. This industry is organised largely by British merchants, and the export value before the War was about £ $\frac{3}{4}$  million. Continental Greece has a small *cotton* industry, the spinning mills being at Livadia, Trikkala and Volo, i.e. near the cotton-fields, and the weaving centres at the chief ports, Athens, Piræus, Syra, Volo, Salonica, etc., where foreign yarn can easily be imported. The output, however, does not by any means suffice for local consumption. There is likewise some small production of silks and woollens, and the peasantry wear woollen homespuns. *Soap* from olive-oil is prepared at Smyrna, Eleusis, Canea and Candia.

**Trade Relations.**—All parts of Continental Greece are linked up by rail, although from the nature of the country the routes followed are



## Greenland.

circuitous. Salonica is the terminus of a main route running via Belgrade and Vienna to Central and Western Europe, while Smyrna is a focussing point of the railways of Asia Minor and the terminus of the (incomplete) Bagdad Railway. Nevertheless Greek trade is necessarily almost entirely by sea, and the largest business is done with Great Britain, which purchases currants, raisins, sultanas, tobacco and ores, and sends in return cotton and woollen goods, coal, iron and machinery. This trade amounted to £15 millions in 1920 at the average rate of exchange. Supplies of grain were formerly obtained from Russia and Bulgaria, and these are now being imported from America. Czecho-Slovakia should supply the sugar and miscellaneous manufactures formerly credited to Austria, and Central Europe will continue to offer a market for tobacco, as also does Egypt. Tobacco and olive-oil (for refining) go to Italy, which has silks and cottons to send in return. Provided political difficulties are finally settled, Greater Greece should offer an expanding market for manufactured goods suited to local needs, and the entrepôt trade of Salonica and Smyrna should develop. Piræus is the principal port of Greece proper, the trade of Patras having declined, since the opening of the Corinth ship canal made the capital and its outport more directly accessible from the west. This canal is available for vessels drawing up to 26½ ft. At Piræus goods must be lightered, and further accommodation is urgently needed. Syra is the shipping centre for the Ægean, and is in daily communication with the mainland. Vessels drawing 25 ft. can moor at the quays.

**General Information.**—The unit of currency in Greece is the *drachma*, equivalent to the franc, and therefore normally worth about 9½*d.* or 25·225 *drachmai* = £1 sterling. The gold coins of Great Britain, Turkey, Egypt, and the leading European countries are legal tender. The National and Ionian Banks are authorised to issue currency notes, which are at present the main medium of circulation. The chief banking establishments with London offices are the Bank of Athens and the Ionian Bank.

The metric system of weights and measures has been adopted, but the old units are still largely in use, notably the *oke* of 2·8 lb. and the *stater* of 123 lb. Oil and wine are sold by the barrel, of which the capacity varies with the locality.

Mails take five days to reach Athens, and four days to reach Salonica (overland). There is a British Consul-General at Salonica, besides Consuls at the Piræus, Patras, Canea and Corfu, and Vice-Consuls at Volo, Zante and Candia. A Commercial Secretary is attached to the British Legation.

## GREENLAND

Greenland is a colonial possession of Denmark, the occupied territory having an area of nearly 47,000 square miles (rather smaller than England), and a population of 13,500, of whom all but 400 Europeans are Eskimos. The colony is the coastal fringe of a vast snow-covered land stretching from latitude 60° N. far within the Arctic Regions, and lying between Iceland and Northern Canada. The natives are seal and whale fishers, and fish products are exported, but the most valuable article of commerce is *cryolite*. The trade is a State monopoly, and is worth about £300,000 annually.

## GRENADA

See **Windward Islands**, p. 119.

## GRIQUALAND

See **British South Africa**, p. 105.

## GADELOUPE

**Area and Population.**—The French Colony of Guadeloupe is administered by a Governor ; it includes also several small islands, Marie Galante, Désirade, and others, and has a total area of 688 square miles, and a population of 212,000 (over 300 per square mile). The foreign trade has reached over £4 millions annually, or £19 a head. Exports are much in excess of imports. Negroes and coloured persons form the bulk of the population. Pointe-à-Pitre, the chief harbour, and the finest in the West Indies, has 23,000 inhabitants, while Basse-Terre, the seat of government, has 9,000.<sup>1</sup>

**General Conditions.**—Guadeloupe lies in latitude 16° N., and forms part of the chain of the Lesser Antilles, lying between the British West Indian Colonies of Montserrat and Dominica. These tropical islands are mountainous and of volcanic origin, and are very healthy and fertile. The outstanding economic product is **sugar**, of which 31,000 tons were produced in 1917. There is also a considerable output of *rum*, and the secondary money crops are *coffee* (which is of superior quality), *cacao* and *vanilla*. Bananas, manioc, maize, vegetables and tobacco are grown for local use. The exports, favoured by preferential tariff, go mainly to France, while the imports come largely from the United States.

The unit of currency is the *franc*. The chief banking establishment is the Banque de la Guadeloupe. There is also a branch of the Royal Bank of Canada. Steamship connections with France and the United States are good. Telegraph communication overseas is by wireless. There is a British Vice-Consul at Pointe-à-Pitre.

## GUATEMALA

**Area and Population.**—The Republic of Guatemala has an area of 48,300 square miles (rather smaller than England) and a population of 2 millions. Of these the majority are of pure Indian descent, and of the remainder all are half-castes except for some tens of thousands of persons of Spanish descent living chiefly in the large cities. The capital, Guatemala City, which has 90,000 inhabitants, was destroyed by earthquake in 1917.

<sup>1</sup> For Map see Leeward Islands.



## Guatemala.

Quezaltenango, Coban and Totonicapan have each about 30,000 inhabitants. All are inland cities. Guatemala is a member of the new Federation of Central American Republics. The total trade is only about £6½ millions, or just over £3 a head, but the country is prospering, as is shown by the continued excess of revenue over expenditure, and of exports over imports. There is, however, only a paper currency. Much German capital is invested in the Republic.



FIG. 75.—CENTRAL AMERICA.

**General Physical Conditions.**—Guatemala lies in Central America, between latitudes 14° and 18° N., i.e. entirely within the tropics. The climate is hot and wet, especially in summer, but the interior is elevated and healthy, and the bulk of the population live on the mountain slopes and on the plateau at an elevation of from 1,000 to 5,000 ft. Northwards the

## Guatemala.

Republic extends into the peninsula of Yucatan, and this district (Peten) is comparatively low. Eastwards it opens to a deeply penetrating Gulf of the Caribbean Sea, having its mouth between British Honduras and the Republic of Honduras. Westward the Cordillera bordering the highlands falls steeply to the Pacific Ocean. The lower slopes of the mountains and the plains of the Peten district are clothed with tropical forest. At higher elevations, where the greater part of the land is cleared for agriculture, the vegetation is sub-tropical, while on the high plateaus there are about three-quarter million acres of natural pasture of the savannah type.

**Human and Economic Conditions.**—**Maize**, beans and wheat are raised on the uplands for the local food supply, and such crops as plantains, bananas, cacao, rice and sweet potatoes for the same purpose on the lowlands. On the coast lands facing the Caribbean Sea, **bananas** are grown for export, and from the forests of the Peten district *mahogany*, *chicle* (gum), and a little *logwood* are sent abroad through British Honduras (Belize) or Mexico. The chief money crop of Guatemala is, however, **coffee**, which grows best at elevations of 1,000 to 5,000 ft., the chief plantations being on the Pacific slopes and round Coban. The output in 1918 was 110 million lb., a considerable increase over the crops of previous years. The export is worth about £5 millions. **Sugar** is also an important crop, and there is a small surplus for export which should increase, as the export duty has been abolished. *Tobacco* is grown and manufactured in sufficient quantities for local use, and there is also a small *cotton* crop. **Cattle** rearing is important on the plateaus, and meat, milk and cheese are produced for local use, while hides are exported.

**Trade Relations.**—Previous to the War the Guatemalan coffee went mainly to the United States and Germany, only a small proportion, together with bananas and some mahogany, coming to the United Kingdom. During the War, the United States captured all the German trade, and part of the British, and so took from 80 to 90 per cent. of Guatemalan exports, and supplied the bulk of the imports, although part of these appear in trade returns as from Belize in British Honduras. The figures for 1919 and 1920 show a decided increase in the British totals, both of imports and exports, but the value of the goods handled is still below that for 1912, and the volume of trade is, therefore, very much less than in the years before the War. The principal class of imports is cotton goods, followed by iron and steel goods, and bags.

A railway runs across the Republic from S. José on the Pacific coast, through Guatemala City, to Puerto Barrios, the chief seaport on the Caribbean Sea. Livingston, on the opposite side of the Gulf of Dulce, is the port for the Coban coffee region. Goods must be lightered at these ports. There is also a railway along the Pacific slope to the Mexican border. Transport is, however, still mainly by pack-mule.

**General Information.**—The nominal unit of currency is the silver dollar or *peso*, equivalent to the United States dollar, but only paper money and nickel or copper coins are in circulation. There is a National Bank, of which the function is to make agricultural loans, and otherwise assist the economic development of the country. The principal exchange Banks are the Bank of Guatemala and the International Bank of Guatemala, with London agents. Spanish weights and measures are in use, the chief

**Haiti Republic.**

being the *libra* (1·014 lb. average), the *arroba* (25 libras) and the *quintal* (100 libras). The language spoken is Spanish, and Roman Catholicism, though not established, is the prevailing religion. Mails reach Guatemala in 15 to 17 days. There is a British Consul-General at Guatemala City, a Consul at Quezaltenango, Vice-Consuls at Livingston, Puerto Barrios and San José.

**GUIANA, BRITISH**

See **British Guiana**, p. 81.

**GUIANA, DUTCH**

See **Dutch Guiana**, p. 195.

**GUIANA, FRENCH**

See **French Guiana**, p. 226.

**GUINEA, FRENCH**

See **French West Africa**, p. 231.

**GUINEA, PORTUGUESE**

See **Portuguese Guinea**, p. 398.

**GUINEA, SPANISH**

See **Fernando Po**, p. 209.

**HAITI REPUBLIC**

**Area and Population.**—The Republic of Haiti is, since 1915, virtually a Protectorate of the United States. The area is rather more than 10,000 square miles (one-third the area of Scotland), and the population over 2½ millions. The majority are negroes, but there are also mulattoes who are of mixed French and negro blood, the Republic having formerly been a French colony. Complete trade returns are not available, and the totals vary very considerably from year to year. During the War the imports and exports were small, and before 1914 their value was between £3 million and £4 millions, an indication of the very backward and undeveloped state of the country. In 1918–19, however, the figure rose to £8 millions, since prices ruled high.<sup>1</sup>

<sup>1</sup> For Map see Dominican Republic.



**Hawaii (Sandwich Islands).**

The capital and chief port, Port-au-Prince, has 120,000 inhabitants and possesses a fine harbour. Jacmel, on the south coast, has a population of 20,000; Cayes, a little farther west, has 15,000, and Cape Haiti, on the north coast, about 15,000.

**Position and General Conditions.**—The Republic of Haiti occupies the western part of the island of the same name, the eastern part being the rather more progressive negro republic of Santo Domingo. Haiti is one of the Greater Antilles, lying between Cuba and Porto Rico. It extends between 18° N. and 20° N., and hence has a tropical climate, but the summer heat is modified by the great length of coast line and by the mountainous character of the interior. The mountain chains run from east to west and form two westward stretching peninsulas, enclosing the great bay on which stands Port-au-Prince. The rainfall (chiefly in summer) is good, and the island is still largely forested, the trees including many valuable hardwoods. Hurricanes may occur.

**Human and Economic Conditions.**—Haiti is exceedingly fertile, and the negro farmers grow bananas, sweet potatoes, sugar, maize, manioc, fruits and vegetables by very primitive methods for their own use. The **sugar** industry is capable of great development, and a large, up-to-date central has been established with American capital near Port-au-Prince. At present **coffee** is the most valuable export, the quality, as in the neighbouring island of Jamaica, being very good, but a heavy export duty restricts the output. *Cotton* and *cacao* are exported in small quantities, and the forest products, including *logwood*, wild *honey*, and *chicle gum* make up a total of some importance. *Tobacco* cultivation is also being extended. Trade is chiefly with the United States, the imports including flour, lard and kerosene. Some cotton textiles come from the United Kingdom, besides hardware. A railway from Port-au-Prince to Cape Haiti is under construction. The mountains are rich in unworked minerals, including copper.

**General Information.**—The official language is French, and the religion Roman Catholic. Education is improving. The unit of currency is the *gourde* or dollar, worth one-quarter of a gold (U.S.) dollar. The National Bank is controlled by the National City Bank of New York, and the American Foreign Banking Corporation has a branch at Port-au-Prince. The metric system of weights and measures has been officially adopted (1921). There is cable connection with Cuba and thence with North America. There is a British Vice-Consul at Port-au-Prince.

## **HAWAII (SANDWICH ISLANDS)**

**Area and Population.**—The Hawaiian Islands were annexed by the United States in 1898, and are under the administration of a Governor. Since the annexation the population and prosperity of the group have rapidly increased. The islands cover 6,500 square miles (rather less than Wales), the largest being Hawaii (4,000 square miles), followed by Maui (700 square miles), Oahu and Kauai. The inhabitants number  $\frac{1}{4}$  million, of whom only 40,000 (16 per cent.) are native Hawaiians. Japanese form 44 per cent. of the total (110,000), and there are about 20,000 each of Chinese,

## Hawaii (Sandwich Islands).

Portuguese and Filipinos. Americans, British and other Europeans total 31,000. The growth of savings bank deposits and banking accounts indicates a high level of prosperity. Labour is supplied by voluntary immigration from Asia, wages being high and conditions generally good. The foreign trade of 1918-19 totalled £26 millions, 61 per cent. of this representing exports. This gives a *per capita* trade of over £100, as compared with £18 in the British Fiji Islands, which are very similar in area and character. In 1919-20 the figure was still higher.

The chief town, Honolulu, on the lee-shore of Oahu, has 83,000 inhabitants, serving as an entrepôt not only for the island group, but for the North Pacific generally.

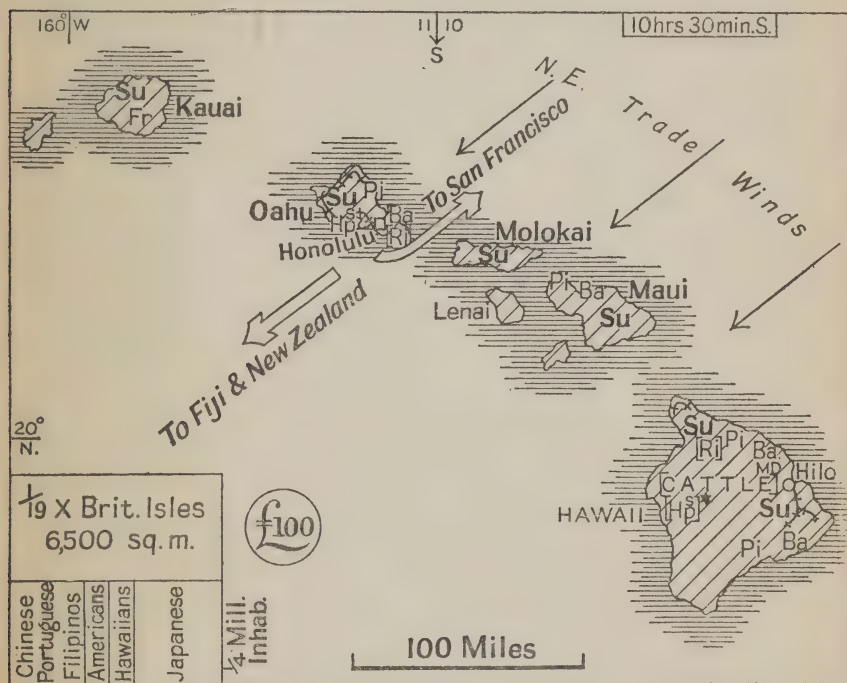


FIG. 76.—HAWAII.

### Position, Climate and General Physical Conditions.

—The Hawaiian Islands form a chain stretching from north-west to south-east across the Tropic of Cancer in the middle of the North Pacific Ocean. They are of volcanic origin, and hence are mountainous in character, but have a highly fertile soil. Lying as they do in the track of the north-east trade winds, the islands have sufficient rainfall to support a luxuriant forest growth, which is fostered also by the uniform heat, which rarely becomes excessive. The climate resembles that of the West Indies, with the advantage, however, of freedom from destructive hurricanes and earthquakes.

**Holland (The Netherlands).**

**Human and Economic Conditions.**—The staple product of the islands is **sugar**, the plantations being conducted on thoroughly up-to-date lines, with modern machinery, and such important adjuncts as light railways or flumes to carry the cane to the centrals. Great attention is bestowed upon the selection of canes, and the fighting of parasites and pests. Nearly two-thirds of the crop of 600,000 short tons is grown on irrigated lands, the rest on unirrigated. The yield is trebled when the fields are irrigated, but more manure is required. Nitrates are readily shipped from Chile, and there are vast deposits of phosphate rock on various Pacific Islands which can be drawn upon. The value of the sugar crop of 1918 was £13 millions. The production of power alcohol from molasses will probably be undertaken.

Next in importance to sugar is **fruit**, pineapples taking the lead, while bananas are second in importance. The 1920 pineapple "pack" was six million cases of two dozen tins, worth over £6 millions. The high profits obtained lead to concentration on the sugar and fruit industries, but the conditions are very suited to *coffee* planting; *rice* is grown to feed the Asiatics; and other valuable crops that succeed are rubber, cotton and sisal, the last named in the drier districts. There is also a pastoral industry, cattle being reared for meat and milk to supply local needs.

**Trade Relations.**—The trade of the Hawaiian Islands is almost exclusively with the United States, into which country the sugar enters duty free, being shipped direct to both Pacific and (via Panama Canal) Atlantic refineries. Only 5 per cent. of the crop is locally refined. The tropical fruits and minor products are also marketed in the States. In return, textile goods (chiefly cottons), iron and steel goods, machinery, flour, canned goods and miscellaneous manufactures are sent from America, and there are minor imports from Japan, Hongkong and Sydney.

Honolulu harbour will admit the largest steamers afloat, and is a port of call for nearly all trans-Pacific vessels. A few miles away is Pearl Harbour, a fortified naval station, with a large dry dock, constructed by the Federal Government for the control of the Panama Canal. Hilo on Hawaii, and Kahului on Maui, both sugar ports, are protected by breakwaters. The total tonnage entering and clearing in 1920 was nearly 5½ millions.

**General Information.**—The coinage, weights and measures of Hawaii are those of the United States. The First National Bank of Hawaii acts as banker to the United States Government; there are, besides the Yokohama Specie Bank (with a London office), another Japanese bank and a Chinese bank. Apart from the Japanese and Chinese the population are Christians. Communications by road, rail and water are good, and there is cable and wireless connection with both sides of the Pacific. There is a British Consul at Honolulu.

**HEDJAZ**

See **Arabia**, p. 19.

**HOLLAND (THE NETHERLANDS)**

**Area and Population.**—The Kingdom of Holland has an area of 13,000 square miles (rather more than one-tenth the area of the



## **Holland (The Netherlands).**

British Isles), and a population of nearly 7 millions, of whom nearly half are Protestants and nearly one-third Roman Catholics. The total trade for 1919–20 was valued at £418 millions, or £62 per head of population, the imports being nearly double the exports, since the Dutch perform important services to other nations as merchants, shippers and bankers, and these invisible exports make up the balance of trade. The figures given refer to merchandise of domestic origin or for domestic consumption. The weight of the goods in transit in 1919–20 was 5·7 million tons, as against a weight of 13·5 million tons for domestic merchandise. The Dutch port of Rotterdam is consequently a leading European entrepôt, handling a large volume of transit and re-export trade. This city has half a million inhabitants, but is exceeded in size by Amsterdam, a seaport handling in the main goods for Dutch consumption, and having 650,000 inhabitants. At both these cities there are important sales of the produce (including cacao, coffee, tea, rubber, tin) of the wealthy Dutch East Indies. The Hague, which is the Court Capital, has 360,000 inhabitants, and Utrecht, the largest inland city, has 138,000. Other important centres of population are Groningen in the extreme north, Haarlem, Leyden (with a University), Arnhem, and Dordrecht, formerly the leading port on the Lower Rhine, but long displaced by Rotterdam.

### **Position, Climate and General Physical Conditions.**

—Holland lies in the same latitude as Southern England, and its climate much resembles that of the Fen District, although, as it lies open to the North Sea and to the westerly winds, it is somewhat wetter, especially in summer and autumn. The winters, too, are rather colder and more of the Continental type. Holland is unique in that a large section of the country, comprising the western margin as far inland as Utrecht, lies below sea-level, and is protected from encroachment by dunes and dykes. From this area (the polders) the rainfall cannot drain off in the usual way, so that windmills and steam-mills are employed to pump the water into canals, which are above the level of the fields, and discharge into the sea. Over much of the land outside the polders there is likewise not sufficient slope to ensure drainage, and the same methods must be employed. The draining and dyking of the Zuider Zee, which is now definitely engaged upon, will add another half a million acres of polder-land to the total. Some 5,000 fishermen will be displaced, but a fresh-water lake will be created, and the new land should support a quarter of a million people. A channel from Amsterdam to the Yssel will be preserved. This great inlet, which will now disappear, was formerly dry land, protected by a chain of sand dunes, represented since the encroachment of the sea in the thirteenth century by the West Frisian Islands. The rich clays and loams of the low-lying areas of Holland are replaced, on the undulating lands to the east and south, by light sandy soils, and to the north-east by a large acreage of moor and peat bog, including the thinly peopled Bourtanger Moor, which forms a natural boundary between Holland and Germany. The Rivers Scheldt, Maas, Rhine and Yssel, which have their mouths in Holland, are all joined by cross channels and artificial canals, forming an intricate network of water-ways of greatest economic importance.

**Human and Economic Conditions.**—Holland is primarily an agricultural country, the rural population forming about 60 per cent.



## Holland (The Netherlands).

sequently the *dairying* industry is of first importance, enormous quantities of **butter**, **cheese** and **condensed milk** being manufactured and exported, chiefly to England and Germany. The value of these three products alone runs into many millions sterling, and the industry is highly organised, the bulk of the butter and nearly half the cheese being made in factories. The Edam and Gouda cheeses from North and South Holland provinces respectively are well known. In addition to cattle, there are in the country over 360,000 horses, mostly of heavy breeds, besides more than 400,000 each of **sheep** (on the lighter soils) and of **pigs**. **Cattle** and **meat**, both fresh and preserved, are further important articles of export, since Holland is favourably placed for the large markets of London and industrial Germany. The ready sale of the produce stimulates, too, the *fruit* and *vegetable* growing industries, and there are large orchards, market-gardens and hothouses, producing cherries, grapes, tomatoes, early potatoes, greens and so forth. The profitable **bulb** industry is also well known, the sandy soil behind the dunes being specially suitable for this purpose.

Built as it is of sands, clays and muds, Holland naturally lacks minerals, but in the extreme south-east, a narrow strip of Dutch territory, part of the province of Limburg, runs between Germany and Belgium, and is crossed by the Aachen coal-field. The **coal** mined in 1920 was 3·9 million tons, or double the output of 1913, but there is, nevertheless, necessarily a large import for domestic and industrial purposes. Nearly half the output is from State mines. **Peat** is dug in the north-east, especially in Drenthe, which yielded 1,172 out of 1,765 million pieces in 1918. Building stones are lacking, and consequently *brick* and *tile-making* are important.

Holland has a very wide range of *industries*, which only to a small extent depend upon local supplies of raw material. In this respect **strawboard**, made largely in the north-east, is exceptional, but both the *linen* and *woollen* industries took their rise from home-grown flax and wool, although yarn is now imported, as is also **cotton** yarn for the cotton manufacture. Raw cotton is, however, spun in Twente, near the eastern frontier. As regards textiles, however, Holland is by no means self-sufficient. Since vast quantities of colonial wares, including those from the Dutch East Indies, are handled at Rotterdam and Amsterdam, these naturally form the basis of many industries, notably *cigar-making*, *cocoa* and *chocolate* manufacture, *sugar-refining*, *rubber* manufacture, and the making of cattle-cake, soap, candles, and especially **margarine** (the latter on a very large scale indeed) from various vegetable oils and fats—ground nuts, soya beans, sesame, copra, colza and linseed. Scandinavian **timber** is largely imported and worked at Zaandam and Amsterdam, while the south of the country receives timber rafts from Germany by the Rhine. There is a large **glass** industry, bottles and lamp-glasses being exported, while of recent growth is a large manufacture of *electric filament lamps* at Eindhoven and Venloo, in the south-east. *Preserves* and *spirits* must also be mentioned, and the *diamond-cutting* industry of Amsterdam, which is almost a monopoly. There are large *engineering* works in the leading cities, and among types of machinery in which the Dutch manufacturers specialise are pumps for draining the fens, and dredgers for keeping open the mouths of the rivers and canals, where mud constantly accumulates.

Since Holland has a very long seaboard, and faces the Dogger Bank, the *fisheries* are important, and over 6,000 vessels are engaged either inshore



**Holland (The Netherlands).**

or at sea, Ymuiden being the leading fishing port. The Dutch merchant fleet is also a large one, and the services it renders as carriers to foreign nations form an important item in the total of "invisible exports." The number of vessels is nearly 1,000, with a gross tonnage of over  $1\frac{3}{4}$  millions, and there are regular sailings to all parts of the globe. It is natural, therefore, that ship-repairing and *shipbuilding* should be carried on on a considerable scale, the number of vessels under construction normally reaching about 200.

**Trade Relations.**—With its network of navigable water-ways, including the rivers Rhine, Maas and Scheldt, and 2,000 miles of canals, Holland can transport heavy goods cheaply to and from Germany and Belgium, or via Germany to Switzerland, while Rotterdam and to a less extent Amsterdam, with excellent overseas shipping connections, and every provision for handling and warehousing goods, are large markets for grain and for colonial produce, e.g. rice, cacao, tea, coffee, spices, oil-seeds, rubber, tobacco. Hence, as already mentioned, there is a great volume of goods in transit, and of re-exports. This entrepôt business is facilitated since Holland is a free-trading country. As has been mentioned, Great Britain and Germany, with their large industrial populations, are the chief consumers of Dutch farm produce, and also of such manufactures as electric bulbs, matches, strawboard and paper. In addition, all the countries of north-western Europe are purchasers from Holland, while hothouse fruit and bulbs go even to America. The imports are drawn from a narrower circle, Germany and Britain again leading and competing, since they supply coal, iron, yarn and other raw materials for industry, besides manufactured textiles and metal goods. Sweden takes the third place, supplying timber and certain manufactures, while the United States is an important source of grain, and the Dutch East Indies (including Java) supply 5 per cent. of the total in the shape of colonial wares. The total trade between Holland and Great Britain in 1920 was valued at £88 millions, of which nearly £48 millions represented imports into Holland.

By far the greatest volume of trade passes through Rotterdam, Amsterdam having the second place, and Delfzijl, at the mouth of the Ems, opposite the German port of Emden, standing third. Minor ports are Harlingen, in Friesland, and Flushing, the packet station for England, situated on the island of Walcheren in Zeeland. The tonnage entering and clearing at Dutch ports in 1920 was about 8 million each way, of which Dutch vessels accounted for one-third.

**General Information.**—The standard coin is the 10-florin piece, containing 6·048 grammes of fine gold, but the unit of currency is the florin or guilder of 100 cents, equivalent normally to 1s. 8d., i.e. 12 fl. = £1. The metric system of weights and measures is in use. The Bank of the Netherlands (a private bank) alone has the privilege, under certain restrictions, of issuing notes, and the money in general circulation is chiefly silver. The leading London Banks act as agents for the Amsterdam Bank and the Rotterdam Banking Company, which are the most important Dutch concerns. The Dutch language is spoken. The standard of education is high, and less than 1 per cent. of the population is illiterate. Letters reach Holland in one day. There is a British Consul-General at

**Honduras.**

Rotterdam, besides Consuls at Delfzijl, Amsterdam, Dordrecht, Flushing, The Hague, Harlingen, Groningen, Ymuiden and elsewhere, and a British Commercial Secretary at the Hague.

**HONDURAS**

**Area and Population.**—The Republic of Honduras has an area of 44,300 square miles ( $1\frac{1}{2}$  times the area of Scotland) and a population of under  $\frac{1}{2}$  million. Honduras is a member of the new Federation of Central American Republics. The people are mainly Indians, with an admixture of Spanish blood, and some negro admixture on the coast nearest the West Indies. The total trade is worth about £4 millions, or over £5 a head, and the imports are in excess of the exports. Only paper money is in circulation. The chief town, Tegucigalpa, has about 30,000 inhabitants. Education is nominally compulsory, but a majority of the population are illiterate.<sup>1</sup>

**General Physical Conditions.**—Honduras is in Central America, and lies between latitude 13° N. and latitude 16° N. It has a long northern seaboard overlooking the Caribbean Sea, and a short seaboard, the Gulf of Fonseca, opening to the Pacific Ocean, between the Republics of Salvador and Nicaragua. Except along the seaboard, and in the north-east, the whole country is elevated, and the tropical heat is consequently modified, giving a pleasant, healthy climate. On the plateau summits there are natural pastures of the savannah type, while on the higher mountain slopes, temperate forests replace the tropical vegetation of the coast plain. The rainfall is everywhere abundant, especially on the north coast.

**Human and Economic Conditions.**—The bulk of the population live on the uplands, and **maize** is the staple food crop raised. Secondary products for local use are beans and wheat, while on the lowlands rice and **sugar** are important. **Tobacco** is grown widely, and a proportion is exported to other parts of Latin America, some being of fine quality. The chief economic product is however **bananas**, which are grown along the North Coast for the United Fruit Company of the United States ( $4\frac{1}{2}$  million bunches in 1920). In the same region there are also **coco-nut** groves of some importance. Some *coffee* is grown on the middle slopes of the mountains, but the export is small. There is a **cattle**-rearing industry on the upland pastures, and milk, meat and cheese are produced, while hides are exported. A little mahogany is obtained from the lowland forests, but on the whole the resources of the country are undeveloped, chiefly for lack of capital and means of transport. Attention is being directed to sisal and castor-oil, as likely to be worth extensive cultivation.

**Trade Relations.**—The total length of railway is under 500 miles, and transport is largely by pack mule and ox-cart. Roads between the principal towns on the highlands and the seaports on either coast are complete, and increasing use is being made of motor-vehicles. Trade is principally with the United States, American boats carrying the bananas,

<sup>1</sup> For Map see Guatemala.

**Hong-Kong.**

coco-nuts and minor products from Pto. Cortez, Tela, Ceiba, and Trujillo on the north coast. A certain amount of food-stuffs go to British Honduras, and trade with other Latin Republics is largely through Amapala, on an island in the Gulf of Fonseca. The trade with the United Kingdom is insignificant. A free port is to be established on the north-east coast. Harbour facilities are at present poor.

**General Information.**—The unit of currency is the silver dollar or *peso*, but only small coins are in circulation, American paper money and Honduras bank-notes being the medium of exchange. The principal banking establishment is the Banco de Honduras, with London agents.

The metric system of weights and measures is legally established, but Spanish units are generally current, the more commonly used being the *libra* (1.014 lb. av.), the *arroba* (25 libras), and the *quintal* (100 libras). Mails reach Honduras in 18–20 days. There are British Consuls at Tegucigalpa, Puerto Cortez and Trujillo.

## HONG-KONG

**Area and Population.**—The Crown Colony of Hong-Kong consists of an island, 32 square miles in area, ceded to Great Britain by China, in addition to the peninsula of Kowloon on the mainland, and a leased territory of neighbouring agricultural land, making a total area of 391 square miles. The total population is well over half a million, all but 13,500 (Europeans and Indians) being Chinese. The death-rate is greatly in excess of the birth-rate, the population being maintained by Chinese immigration. The average excess of immigrants over emigrants is 20,000 annually. The total trade, averaging £161 millions in 1918, 1919, is largely

of an entrepôt character, Hong-Kong being a free port.

**Position, Climate and General Physical Conditions.**—Hong-Kong stands at the mouth of the Canton River, on the coast of Southern China, and ninety miles from Canton. A strait half a mile wide separates the island from the mainland. It lies one degree within the tropics, and in the track of the monsoon winds, so that the climate is very hot and humid in summer, but warm and on the whole dry in winter.

**Human and Economic Conditions.**—The Chinese villages around Hong-



FIG. 78. HONG-KONG.

Kong grow the staple crops of Southern China—rice, sugar, cotton,



## *Hong-Kong.*

indigo, beans, and so forth—many persons also engaging in fishing. The urban population is partly engaged in manufacture, there being large cotton-spinning mills, sugar refineries, rice and flour mills, rope mills, cement works, tin-smelting works, breweries, and shipbuilding and repairing yards. A recent development (entirely Chinese) is a cigarette factory, turning out 10 million cigarettes a day. The bulk of the raw material for these industries is imported, and the finished products exported. The neighbouring Chinese mainland supplies sugar, cotton and hemp; rice comes from French Indo-China, as does tin, although it is actually mined in Yunnan; India and Japan send cotton yarn; the United Kingdom sends woollen yarn; the Philippines send hemp, sugar and timber. It appears that there are large coal resources in the neighbouring Chinese province of Kwantung: concessions are being obtained and capital invested, with a view to providing Hong-Kong with cheap coal.

Of perhaps greater importance than the manufactures is the large entrepôt trade, the Hong-Kong merchant houses handling a large proportion of the trade of Southern China, especially in silk and tea, to which has lately been added vegetable oils. The only figures so far published (1918, 1919) show that the foreign goods sent into China via Hong-Kong were valued at £45 millions, as against imports of Chinese goods valued at £43 millions. Only a small proportion, roughly £4 millions out of the total £45 millions, were goods of British origin, principally cotton piece goods, with small consignments of iron and steel goods and machinery. Japan sent in a much larger share (nearly £10 millions), including cotton piece goods, matches, earthenware, small metal goods, paper, stationery, etc. The United States also sent more goods through Hong-Kong than did Great Britain, petroleum taking the first place, and the consignments of smaller value included iron and steel goods and canned goods, especially condensed milk. The return trade to the States was much smaller than the outward trade, and included silk yarn, silks and wood oil. British purchases of Chinese silk are largely made from Shanghai and Tsingtao, the chief item coming through Hong-Kong being raw hides, with tin as a subsidiary article. Large quantities of rice from Siam and Indo-China are shipped to Hong-Kong. In 1920 British exports to Hong-Kong underwent a rapid increase.

The total consignments to the United Kingdom (£2 millions) were exceptionally low in 1918 and 1919, but serve to indicate the general setback to British trade in the East consequent on the War. By virtue of its position on the north shore of the South China Sea, its fine harbour, and the fact that it is a free port, Hong-Kong handles a part of the trade of the countries round that Sea, notably the Philippines, British and Dutch Indies, Siam, and French Indo-China. This trade is largely in such commodities as rice, sugar, tea, oil, tobacco, drugs, and cotton piece goods, besides miscellaneous manufactures. The total from these sources was about £25 millions in 1919.

The fact that Hong-Kong is an important military and naval station, as well as a principal port of call for mail steamers and tourist traffic, leads to a considerable demand for luxury articles of European as well as of Eastern origin.

**General Information.**—The currency of Hong-Kong consists of notes issued by three banks (the Hong-Kong and Shanghai Banking

**Hungary.**

Corporation, Chartered Bank of India, Australia and China, and Mercantile Bank of India), besides British, Hong-Kong and Mexican dollars, all of nominal value 2s., and coins subsidiary to these. The weights and measures of Great Britain and of China, including the *picul* of 133½ lb., are in general use. Duties are levied on tobacco and alcoholic beverages. The international Banking Corporation (U.S.A.), the Yokohama Specie Bank, two French and two Dutch Banks, have branches at Hong-Kong.

**HUNGARY**

**Area and Population.**—The Republic of Hungary is administered by a Governor, who has practically royal prerogatives. The former Kingdom of Hungary lost territory to Czecho-Slovakia, to Jugo-Slavia, and to Rumania, and forms now neither a geographical nor an economic unit. The area is estimated at 32,800 square miles (about one-quarter the British Isles), and the population at 7½ millions, of whom over one million are in the capital city of Buda-Pest. This population is almost entirely Magyar, and Roman Catholic, but large numbers (probably 2 millions) of Magyars are to be found also in the lost territories. The city of Buda-Pest, formerly the metropolis of a country larger than the British Isles, which supported approximately 22 million people, must necessarily decay in importance, especially as regards such activities as banking, education, and commerce, and the period of readjustment will involve widespread ruin and distress. The second town is Szegedin, a large agricultural and market centre at the confluence of the Maros and the Theiss, while Debreczin, Pecs, and Hodmezö-Vasarhely are other large centres of rural life. The pre-war trade of Hungary was about £7 a head, but no estimate is possible for the present or immediate future. Educational facilities are good, but there is much poverty, and emigration is normally on a large scale.

**Position and General Physical Conditions.**—Hungary lies in the centre of Europe, between latitudes 45½° and 48½° N., Buda-Pest being in the same latitude as Basel and Nantes. It occupies the major part of the Great Plain of the middle Danube, which is hemmed in on all sides by mountains—the Alps, Carpathians, and the ranges of the Balkan Peninsula. The Danube, the main natural line of communication, enters this plain by a gap at Pressburg, and leaves it by the Iron Gate of Orsova, but the new Hungary no longer extends to this latter limit. The greater part of the country is a level alluvial plain of great fertility, but a range of hills and mountains, running from south-west to north-east (comprising the Bakony Forest, Matra and Bükk Mountains), lies athwart the course of the Danube, which therefore has a narrow and steep-sided valley between Gran and the capital. The climate of Hungary is somewhat extreme, and the rainfall is only moderate. The combination of a hot and relatively dry summer gave the plain in its natural condition a steppe-like character (the famous *pusztas* are grass-steppes), woods being poorly developed, and under cultivation the land yields abundant crops of grain. The only forested areas are to be found on the transverse range of hills and mountains already mentioned. There are extensive marshes along the Danube and its tributary the Theiss, and both these rivers follow a general north-south course across the plain, their confluence now being in Serbia.



## Hungary.

**Human and Economic Conditions.**—Hungary is essentially an agricultural country, those regions in which mining and forestry were important having now been attached to other States. Of the agricultural regions, too, moreover, some of the most fertile have been lost, including the Little Hungarian Plain above Pressburg, and the Banat and Bačka



FIG. 79.—HUNGARY.

in the south. The latter were particularly valuable, since their southerly position gave them a longer and hotter summer than elsewhere on the Plain. The two chief crops are **wheat** and **maize**, the latter being more important in the south and east, the former in the north and west: of both there should be under normal conditions a large exportable surplus, which should find a market in the mining regions of neighbouring States, and in the industrial centres of Western Europe. The secondary grain crops are *rye* and *barley*, mainly for local use, while the principal root crops are **sugar-beets** and **potatoes**. The latter are largely used in the manufacture of *starch* and *alcohol*, while the former should yield from 150,000 to 200,000 tons of sugar, of which a considerable proportion would be available for export. **Tobacco** (a Government monopoly) and **vines** are extensively grown, the former for local use, and the latter both for local use and for export, in the form of *wine*, although only the Tokay vintage is well known outside Central Europe. The rearing of *horses*, *cattle* and *sheep* was the traditional occupation of the Magyars on the pusztas, and although much of this natural pasture has been put under the plough, the loss is more than made up by the abundance of the hay, root and cereal crops which are fed to stock, although from this point of view the loss of the large maize



**Iceland.**

harvest of the South is serious. Maize, barley and potatoes are also fed to *pigs*, which are important, and large numbers of poultry are kept on the farms. Hence live and dead *meat, lard, bacon, hides* and *wool* are among the secondary exports of the Plain under normal conditions. At present there is a deficiency of seeds, manures, and agricultural implements, while the flocks and herds have been depleted, so that ample credit facilities must be forthcoming before the country can play its important rôle as a food-producer in the economy of Central Europe.

Very little mineral wealth remains to Hungary, but the Pecs **coal-basin** is said to have huge reserves, and there is also some lignite mined near Buda-Pest. Nearly 90 per cent. of the *forests* have passed into other hands.

Hungary has never been a manufacturing country, the main industries being those usually found in agricultural centres, namely, *flour-milling*, brewing, distilling, tanning, soap-making, sugar-refining, tobacco manufacture and so forth. Such industries as existed apart from these had been fostered by the Government, and were carried on largely at Buda-Pest: they included iron and steel and engineering works, jute manufacture (sacks and bags) and some cotton and linen weaving.

**Trade Relations.**—Hungary lies far from the sea, and as has been suggested, her main trade should consist in the exchange of food-stuffs for the metals and manufactures produced by the States lying to the west and south of her borders, and also for the colonial produce brought to the great entrepôts of Western Europe. Much will depend upon the tariff walls raised, or the economic treaties entered into, by the neighbouring countries. The Hungarian peasants are very poor, and agricultural implements and tools, together with cheap textiles and articles of domestic use, will comprise their main requirements.

**General Information.**—The unit of currency is the *krone*, normally worth 10*d.*, or 24 kronen = £1 sterling, but at present only paper money is in circulation. The metric system of weights and measures is in general use. The chief Banking establishments are the Hungarian Commercial Bank of Pest, and the Hungarian Banking and Trading Company, for which the leading London banks are agents.

Mails take 2-3 days to reach Buda-Pest, where there is a British Consul, and a British Commercial Secretary.

## ICELAND

**Area and Population.**—The Kingdom of Iceland is ruled by the reigning monarch of Denmark. It has an area of nearly 40,000 square miles, and a population of about 90,000, of whom 15,000 live in the chief town and seaport of Reykjavik. Apart from Reykjavik, the only centres of population are large and small villages, while over half the inhabitants live in lonely scattered farms, usually on the margin of a fiord, or on the banks of a river. There are very few foreigners in Iceland, the people being descended from the ancient Vikings, and speaking the Icelandic tongue, which is akin to Norwegian. The numbers are increasing, although there is a small steady emigration to Canada. The Icelandic people are well educated, and there is universal suffrage. The total trade in 1918 was

## Iceland.

between 4 and 5 million sterling, or £48 *per capita*—a high figure due to the fact that the local range of products is so limited, and twice that of the pre-war period.

**Position, Climate and General Conditions.**—Iceland lies in the North Atlantic Ocean, between Norway and Greenland, and just south of the Arctic Circle. Except in the east, the whole country feels the benefit of the warm westerly winds and ocean drift which characterise the North Atlantic. Hence the rainfall is plentiful, the summers cool, and the winters not extreme, the firds remaining free from ice as in Norway. The whole of the interior is, however, elevated, and hence is never warm, so that it is unproductive, and in part covered with snowfields and great glaciers. The population is confined to the margins and to the lower parts of the river valleys, and for

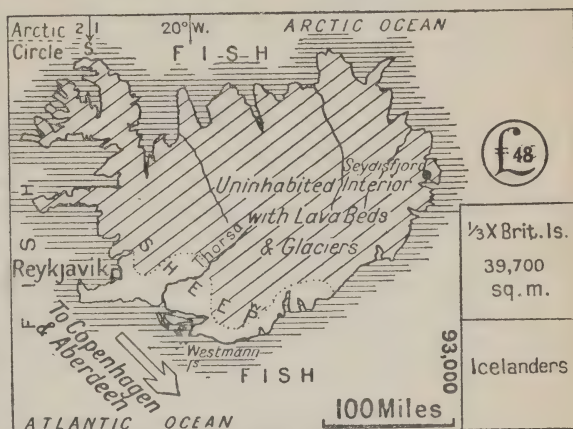


FIG. 80.—ICELAND.

the most part the people are occupied in agriculture and fishing. The Iceland fisheries are valuable, and the fishing-grounds are visited by foreign, including British, fleets. **Cod** are the most important fish obtained, the herring catch being relatively small. The total value of the fisheries is estimated at over £1 million sterling. The only crops are *potatoes* for local use, *turnips* and *hay*, which are fed to stock. There are relatively few horses and horned cattle, but over 580,000 **sheep** (1919), which are the main source of livelihood to the farmers. Factories have been established at various points on the coast for the manufacture of fish-meal and fish-manure.

The leading exports are *fish* (dried, salted or packed in ice) and *fish products* (e.g. oil, roe), which go chiefly to Great Britain, and in smaller quantities to Scandinavia, and to Spain and Italy, the latter being great markets for stock fish. The *wool*, *tallow*, *hides* and *salted meat* from the sheep make up practically the remainder of the outgoing trade, and are sent chiefly to Denmark, Scandinavia and Great Britain. About 3,000 of the sturdy little Iceland ponies are also exported annually.

On the list of imports, timber and wooden goods stand first, since the country is treeless, these coming from Scandinavia and Denmark. Cereals rank second, coming from one or other of the continental entrepôts, or direct from the United States. Coal and textiles, largely supplied by Great Britain, are next in importance, besides salt (for fish curing), colonial wares, yarn and rope (for the shipping) and a great variety of manufactured goods. The greatest aggregate of imports is from Denmark, a considerable proportion being Danish manufactures or re-exports from Copenhagen. Great Britain

**India.**

stands second as a country of origin, and the two together account for some 70 per cent. of the import trade. The unit of currency in Iceland is the *krona* (Danish krone) worth 1s. 1½d., or about 18 *kronur* (Danish kroner) to the pound sterling at a normal exchange. The metric system of weights and measures is in universal use. The chief banking establishments are the Islands Banki and Landsbankin Islands, with London agents.

There is a British Consul at Reykjavik, and there are Vice-Consuls at several fishing villages.

## INDIA

**Area and Population.**—India comprises all that part of the Indian peninsula which is directly or indirectly under British rule or protection, i.e. both British Provinces and Native States, besides two British Provinces lying outside the peninsula, namely, Baluchistan to the west and Burma to the east. The British Provinces have an area of nearly 1·1 million square miles (equal to that of Argentina), while the Native States have an area of 0·7 million square miles, bringing up the total for all India to 18 million square miles, i.e. it is about half the size of Canada.

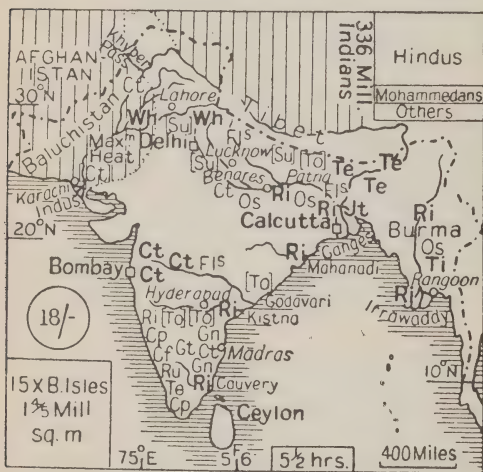


FIG. 81.—INDIA: CROPS.

Of the population (census 1911), 244 millions are resident in the British Provinces, and 71 millions in the Native States, the former including the more densely peopled and productive regions. If the rate of increase during the previous decade has been maintained, some 21 millions must be added to the 1911 total, giving an estimate for to-day of 336 millions (about 11 millions more than in China). The bulk of these people are an illiterate peasantry, engaged in farming the land by traditional methods of a most primitive character. The surplus production of their small holdings

is not great, so that the external trade of India amounted in 1917–18 to only £272 millions, or about 16s. a head. Since, however, the bulk of the output is from the British Provinces, a nearer estimate for these would be £1 a head. The exports exceeded the imports by £54 millions in the year named. Part of the excess was paid for by the import of treasure (£34 millions in 1917–18), while part goes to pay interest on some £656 millions of British capital which is estimated to be invested in India. The average for the years 1919–20 was £369 millions, the excess of exports being reduced to £29 millions.



## India.

Actually in 1920 imports were largely in excess, due to the slump in the tea, jute, and hides and skins markets.<sup>1</sup>

Although forming but 17 per cent. of the total population, 54 million persons in India are registered as engaged in trade or industry. Hence there are many large cities, no fewer than thirty having a population of over 100,000. The two largest of these, Calcutta ( $1\frac{1}{4}$  millions) and Bombay (nearly 1 million) are the principal centres where trade and industry are conducted on Western lines, and the same is true to a less degree of Madras (nearly half a million people). Hyderabad (half a million) is, however, the capital of a Native State, and in Rangoon, Lucknow, Delhi (the capital) and Lahore also, each with over a quarter of a million inhabitants, the aggregation owes relatively little to British organisation.

The number of Indians able to speak English is 1·7 millions, and in 1917 over  $1\frac{1}{4}$  millions (chiefly males) were receiving secondary or higher education on British lines.

**Position and Climate.**—India stretches from about  $36^{\circ}$  N. latitude to  $8^{\circ}$  N. latitude, i.e. a great part of it lies outside the tropics. Moreover, this northern extra-tropical area has, except for the Indus delta, no seaboard, and hence it is subject to the greatest contrasts between the "cold" and hot seasons. Northern India, too, presents the greatest rainfall contrasts—the north-east being the wettest part of the whole country, while the north-west is the driest. The very dry area comprises the middle and lower Indus basin, and it is here that the heat is most trying and extreme, since there is neither cloud nor rain to cool the air.

Southern India has much less variation of temperature through the year, the lowest mean monthly average being higher than that in the hottest part of England in summer, while the highest mean is ten degrees (Fahrenheit) cooler than in the Indus valley. It is in Northern India that a migration of Europeans to hill stations during the hot season is most necessary.

The whole life of India depends on the regular recurrence of the monsoon—the rain-bearing south-west wind which advances from the Indian Ocean during the summer months, and extends gradually over the country, beginning in the extreme south, spreading north-eastwards, and reaching the north-west last of all. The monsoon may be late in arriving, or it may be weak, and a whole or partial failure of the harvest in certain (but not all) regions is the result. Famines are not, however, so disastrous as in former years, since the railways allow food to be brought quickly to the stricken areas, while Government provides relief works and seed for the coming year.

The main current of the south-west monsoon strikes the west coast of peninsular India, and this region (which includes Bombay Presidency) has unfailing and very heavy rains. As they continue across the Dekkan the winds get much drier, so that the rains are light, and a drought is not unusual. The part of the monsoon current crossing the Bay of Bengal brings abundant rain to Burma and Assam, where no failure is ever experienced, and then gradually sweeping round, blows as a south-easterly wind up the Ganges Valley, where consequently there is a rainfall diminishing in quantity and certainty from east to west. Here, therefore, there may be whole or partial failure. There is always a downpour on the southern slopes of the Himalayas,

<sup>1</sup> For the sake of uniformity, and to allow of comparison, the fluctuation of the rupee from a normal value of 1s. 4d. to 2s. in 1920 has been ignored, and values are given in sterling on the basis 15 Rs. = one gold sovereign.

giving rise to rivers with a perennial flow. The middle and lower Indus basin is passed by the south-west current to the south, and by the south-east current to the north, so that apart from irregular summer showers it is rainless : here occurs the Thar or Indian Desert.

Although summer rains are the rule throughout India, there are certain regions that have also some rainfall in winter. The south-west monsoon, retreating in autumn, recurves over the Bay of Bengal until it is blowing from the north-east, and so gives a winter rainfall to the Carnatic Coast southwards from Madras. Northern India is at the same time visited by atmospheric depressions coming from the west, which lead to rain on the mountain slopes and on the northern margins of the Punjab, United Provinces and Assam. Over the greater part of India, however, the north-east or dry monsoon gradually establishes itself during the winter months. Heavy night dews and local thunder showers alone mitigate the drought.

At the change of the monsoon, the atmosphere is unstable and severe storms occur, taking the form of tropical cyclones, which sweep over the Bay of Bengal, and raise tidal waves which often cause widespread destruction on the surrounding low coastal plains.

May and early June, when the sun is powerful and the skies cloudless, form the "hot season" in India, to be followed by the "wet season," and this in turn by the "cold" season, lasting from November to April. During the latter season the nights are chilly, but according to European standards the days are still far from cool.

**General Physical Conditions.**—India proper has three well-marked divisions : the high mountains, the plains and the peninsular tableland. The Himalayas form an unbroken rampart two to five miles high in the north ; the Hindu Kush and Sulaiman Ranges shut off Afghanistan and Baluchistan to the west ; the Mountains of Assam and the Arakan Mountains isolate Burma to the east.

Enclosed on three sides by these mountains, the Indo-Gangetic plain has been built up of the rock-waste that their rivers bring down, and consequently is floored with a deep alluvial soil of great fertility. It is divided into two distinct regions : (a) the Indus Basin, opening to the Arabian Gulf, which suffers from deficient rainfall and excessive heat ; (b) the Ganges Basin, opening to the Bay of Bengal, which has as a rule abundant rains. The Thar Desert and Aravalli Hills divide the two regions, but between the northern spurs of these hills and the foot-hills of the Himalayas is a wide gap which offers the natural line of advance from the one region to the other. This gap or gate is commanded by Delhi.

Tropical India consists of a great tableland, the Dekkan, built of very ancient rocks, and hence is a mineral-producing region. The tableland is tilted gently eastwards and presents a steep face, the Western Ghats, to the Arabian Sea, while it has a more broken edge overlooking the Bay of Bengal. The main rivers naturally flow eastwards, and have built great fertile deltas along the coast. They include the Mahanadi, Kistna, Godavari and Cauvery. The Nahabada and Tapti are exceptional, since they escape through deep gorges cut in the Western Ghats, and enter the Gulf of Cambay.

Poor, thin soils cover a great part of the Dekkan, but there are rich accumulations in the valleys. Moreover, a huge volcanic outburst in a long past era spread a covering of *trap* over the north-west of the tableland, and this has weathered into a black, sticky soil which holds moisture well, and



## India.

if neither too deep nor too shallow is highly productive (the black cotton soil).

Outside India proper are Baluchistan and Burma. The former is part of the plateau of Iran, and consists of high, arid, mountain-girt basins, drained by rivers whose waters evaporate or lose themselves in sand and swamp instead of reaching the sea. Burma lies beyond the eastern mountain chains, the essential feature of the country being the wide and fertile Irrawaddy Valley, stretching from north to south between parallel ranges, and terminating in a vast delta.

The configuration and boundaries of India have served to isolate the country. The northern plains reach the sea in two places only, the Indus and Ganges deltas. The former is sandy and arid, the latter so wet that it is overgrown by almost impenetrable swamp jungle—the Sunderbunds. Neither do the points where the Indus and the Brahmaputra (tributary to the Ganges) enter the country afford gateways for human traffic. These rivers descend from the Tibetan plateau to the plains by way of inaccessible gorges cut deeply into the Himalayas. The only relatively easy land entry to India is from the north-west, by the Khyber Pass in the valley of the Kabul River; hence the concentration of troops and the multiplication of railways in this part of India.

Vast forests clothe the slopes of the Himalayas, and the mountains of Assam and Burma. The trees include teak, deodar, sal, sandalwood, and many others of economic value. The Western Ghats and the loftier parts of the Dekkan—notably in Central India and the Nilghiri Hills—are also forested. The total heavily-timbered area is over a quarter million square miles, of which 100,000 square miles are classed as "Reserved Forests," i.e. they are under the State Forest Department, and are permanently maintained for the supply of timber. They yield an annual revenue of about £1½ millions.

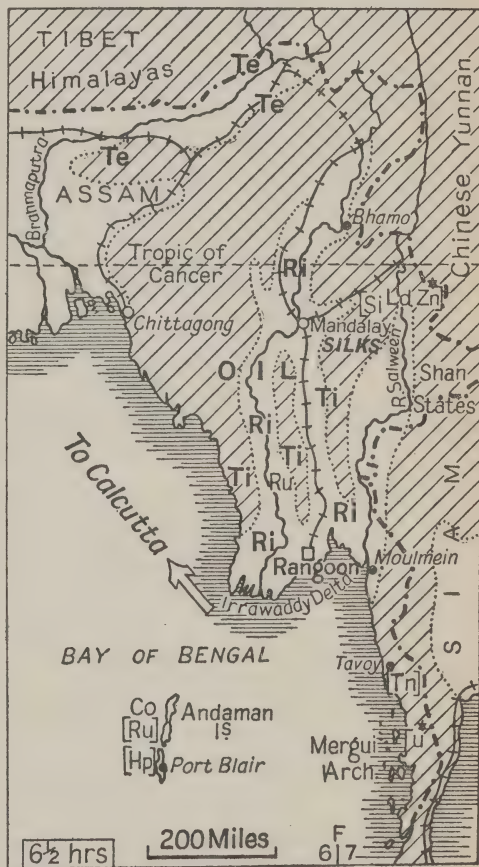


FIG. 82.—BURMA AND ASSAM.



On the cultivated plains little of the original vegetation remains, the villages being surrounded by groves of banyans, figs, palms, mango and banana trees. At the foot of the Himalayas is the Terai, a dense jungle of tall grasses, bamboos and bush, and there is much grass jungle and light scrub on the Dekkan, although the deep gorges are wooded. In the dry north-west, hard-leaved evergreen trees and shrubs and thorn bushes are the dominating features, growing often in sandy and stony wastes, which are dotted with oases where irrigation has transformed the soil.

**Human and Economic Conditions.**—The people of India represent a medley of races, languages and religions, ranging as regards civilisation from the primitive savage hunter to the cultured and educated Parsi. The Hindi language is spoken by 82 millions, Bengali by 48 millions, Telugu by 24 millions, Marathi by 20 millions, Tamil by 18 millions, Punjabi by 16 millions, while in addition there are seventeen other languages each spoken by more than a million people, besides many others spoken by smaller groups. English is the mother-tongue of 300,000 people.

As regards religion, two-thirds of the people are Hindus, and nearly 67 millions are Mohammedans, who form the majority in the Punjab and the North-West Frontier Province (for the religion came from Central Asia), and who also slightly outnumber the Hindus in Bengal. There are also over 10 million Buddhists in Burma (where the people are of Mongolian race), and nearly 4 million native Christians, the majority in Southern India. Pagan races aggregate over 10 millions. Racial, religious and caste differences introduce divisions between individuals, so that their organisation as workers is difficult, and collective bargaining as between employers and employed hardly exists. The result is that the standard of wages and the hours and conditions of labour are not satisfactory, and disputes are difficult to settle.

About 72 per cent. of the total population are supported by *agriculture*. All the land is cultivated in small holdings, but rather more than half is rented from zamindari—large proprietors—or from the village community, while rather less than half is owned by the peasants themselves (ryots), who pay the land tax directly to the State. Of the two systems ryotwari is universal in Burma and Sind, and predominates in Assam, Madras and Bombay, while zamindari and village communities are the rule in the Ganges Valley, Punjab and Central Provinces.

Small holdings are usually associated with intensive cultivation and high yield, which outweighs the drawback that expensive hand labour must be substituted for machinery. In India, however, the lack of manure, the extreme poverty and conservatism of the peasants, and the frequently insufficient water supply lead to indifferent cropping. Better implements are gradually being introduced by Government, and the establishment of co-operative credit societies and agricultural banks should eventually overcome the difficulty of obtaining suitable seed and manures, but progress is slow. The lack of farm-yard manure is due to the fact that cattle-dung is used as fuel, and not to the absence of cattle, which are very numerous.

Although the climate allows crops to be sown and reaped all through the year, double and treble cropping, such as is found in China and Japan, is practised on only one-seventh of the cultivated land of India—mainly on irrigated fields. The two agricultural seasons are the *rabi* (winter) and *kharij* (monsoon), fields being cultivated in the opposite season in alternate

## India.

years and left fallow in the interval. Rotation is practised, the main classes of crops being grains, pulses, and oil-seeds. Wheat, gram, sesamum and rape are among the rabi crops; rice, millet, cotton, sugar and many pulses are kharif. *Irrigation* is rendered necessary by the length of the dry season, and by the low rainfall in many parts of the country. On the Indo-Gangetic Plain (Punjab, Sind, United Provinces), and on the coast-plain of Madras, canals are employed. These are constructed by the State, a canal rate being levied on the matured crop, so that in event of harvest failure the Government shares the loss. In the plateau region of Central and Southern India, artificial lakes (tanks) are constructed by damming the rivers, while native wells, increased in numbers by Government assistance, are universal.

The area irrigated in 1916-17 was 48 million acres, i.e. the equivalent of the whole extent of arable land and permanent pasture in the United Kingdom. Of this 46 per cent. was irrigated by canals, 15 per cent. by tanks, 25 per cent. by wells, and the remainder by other means, e.g. shadufs. The net revenue from the State works (54 per cent. of the total) was nearly £5 millions, and the value of the crops raised from this land was £61½ millions.

**Rice** is the crop covering the largest acreage, being grown principally on the flood plains and deltas of the Ganges and Irrawaddy, on the deltas of the Mahanadi, Kistna and Cauvery, the irrigated fields of Sind (lower Indus), and the coast plain of Bombay. Of an export in 1917-18 valued at £13 millions, the share of Burma was £9 millions, and that of Madras £2 millions. Normally Bengal has the second place, but this crop may be sent to other parts of India where the harvest has failed.

**Millet**s cover the second largest acreage, serving as food for the poorer people and fodder for cattle, but they do not enter into the external commerce of the country.

**Wheat** stands third as regards acreage, being grown as a rabi crop especially in the Punjab and the United Provinces (latitudes 28°-32° N.), where the winter rains, together with water conserved in the soil from the previous monsoon, afford sufficient moisture. It is also grown on the irrigated areas and on the water-conserving soil of the north-west Dekkan. The yield of wheat is about 10 million tons, and although it is of inferior quality, the export is worth about £13 millions annually. In 1919 and 1920, however, only a very limited quantity was allowed to go abroad.

Ranking fourth as regards acreage, but first in importance as regards commercial importance, is **cotton**, which is grown principally on the black soil of the Dekkan, in Bombay, and Central Provinces and Hyderabad. The yield (4-6 million bales of 400 lbs.) is between one-third and a quarter of that of America, and much greater than that of Egypt. The Indian cotton is of short staple, and hence is relatively little used by the Lancashire spinners, but it has been proved that Egyptian and American varieties can be grown in the irrigated areas of the Punjab and Madras, from which ½ million bales could be obtained. The region of greatest promise, however, is Sind, the province watered by the Lower Indus, which most closely resembles Egypt. The construction of a barrage at Sukkur, in the north of the province, would bring a large area under perennial irrigation, and it is hoped that the Government will execute this project in view of the increasing world shortage of cotton.

The various **oil-seeds**—rape, sesamum, and linseed—together occupy an



acreage nearly equal to that of cotton, and supply an important product both for domestic consumption and for export. With these must be classed *ground-nuts*, also yielding oil, which have of late years been much more generally cultivated. Linseed, which is the most exacting as regards soil and moisture conditions, shows a slightly decreasing acreage.

Over 2½ million acres in India are under **sugar-cane**, but the yield (averaging 1 ton to the acre) is sufficient for local needs. The chief productive area is in the United Provinces at the foot of the Himalayas, and in the neighbouring portions of the Punjab, Bihar and Bengal. This area is outside the tropics, and has a very long dry season, so that the indigenous cane is quite unlike the tropical canes from which the refined sugar of commerce is obtained. The cultivation in tropical India, where canes suitable for the factory could be grown, is relatively unimportant. Abundant irrigation, heavy manuring, and much weeding are necessary for a heavy growth of cane, and as each of these presents a difficulty in India, any improvement in the industry is likely to be of slow growth.

**Jute**, like cotton, has a commercial importance that is hardly indicated by the acreage occupied by the crop. India holds almost a monopoly in this fibre, and its cultivation is limited to the deep moist soils found in Bengal in the neighbourhood of the Ganges delta. The yield varies from 6 million to 9 million bales, since both yield and acreage are fluctuating.

**Tea** is another crop which is grown very locally, over half of the acreage being on the mountain slopes in Assam, and a quarter on the slopes of the Himalayas round Darjeeling. These regions have some precipitation in winter in addition to a long and heavy summer rainfall, a necessary condition for this evergreen shrub. A little tea is also grown on the Nilgiri Hills. During the last decade the area of production has increased 27 per cent., but owing to improved methods the yield has increased no less than 56 per cent., the 1918 crop being 372 million lb., of which 90 per cent. was sent abroad. Over three-quarters of a million people are employed on the plantations, the output averaging 500 lb. a head. Both the yield per acre and the output per person employed are greater than in Ceylon.

War conditions gave a fresh stimulus to the cultivation of **indigo**, but as the synthetic product is once more in the market, the output is dropping again into insignificance.

Since bullocks are used almost universally as draught animals, both for the plough, at the well, and in country carts, the number of **cattle** is large. Buffaloes are used for similar purposes in the wet rice-fields, and buffalo cows are kept very generally for their rich milk. The total number of bovine animals is over 150 millions—five times as many as in Argentina. In the dry north-west (Punjab and Sind) camels are used. Since the Hindu religion forbids the use of beef for food, and the prohibition is widely observed by non-Hindus also, *goats* are reared in very large numbers (about 56 millions) both for their flesh and milk. The consequence is that India has an enormous surplus of *hides* and *skins* for export.

**Mining** is relatively unimportant in India, considering the size and population of the country. The **coal**-field most extensively worked is that on the north-eastern margin of the Dekkan plateau, stretching through Bengal, Bihar and Orissa. The field of Singareni in eastern Hyderabad is second in importance. The output has reached 22 million tons, and more



## India.

than supplies the needs of the railways and factories, domestic consumption being very small.

Next in value is the **gold** (£2½ millions) produced from the quartz reef of Kolar, in the native State of Mysore. Electrical power for the workings is derived from the falls of the river Cauvery. India is also one of the chief sources of the world's supply of **manganese** (for hardening steel), which is mined in various parts of the Dekkan to the value of £1½ millions. The competition of Brazil, which now supplies the United States, is being felt. The **petroleum** output of Burma (in the Irrawaddy Valley) is worth over £1 million annually, and renders the whole country largely independent of foreign supplies of kerosene. Assam also has some oil-wells. In 1919 the Burma yield was over 8 million barrels, that of Assam 330,000. There are refineries at Rangoon, fed by pipe - lines. About 25 million gallons of motor spirit are exported, while about one-third of the kerosene, consumed is imported, the United States having twice as great a share in this trade as the nearer lying Dutch Indies.

In the south of Burma, behind Tavoy, there are important deposits of *tungsten* ore (wolfram), of which the development has begun, although the 1921 price slump checked operations. There is also *tin* both in the Tavoy and Mergui districts awaiting exploitation. *Iron* is found in conjunction with the Bengal coal and is worked for local use. In the recently opened *silver-lead-zinc* mines of the Upper Shan States, large reserves of ore have been proved, and the output is already of importance. A neighbouring colliery is being worked to supply cheap power.

The large supplies of local raw material, the abundant cheap labour in the towns, and the ample facilities for marketing the products from Bombay and Calcutta have led to the growth of *manufactures* principally at these two centres. Bombay, the focus of several railways crossing the black cotton soil, is the natural centre for the *cotton* industry, while Calcutta, close to the *jute* fields, manufactures the latter fibre. Electrical power, derived from the water tumbling over the steep Western Ghats, drives the spindles and looms of Bombay, while coal from the Bengal field is easily carried to Calcutta. Both industries were originally carried on with British capital, under British direction, and with British foremen, but several Indian firms, using Indian capital, are now manufacturing cotton by Western methods. There are 261 cotton factories, averaging 1,000 operatives apiece; 6·6 million spindles (Japan has just half as many) and 108 thousand looms. Ahmadabad in

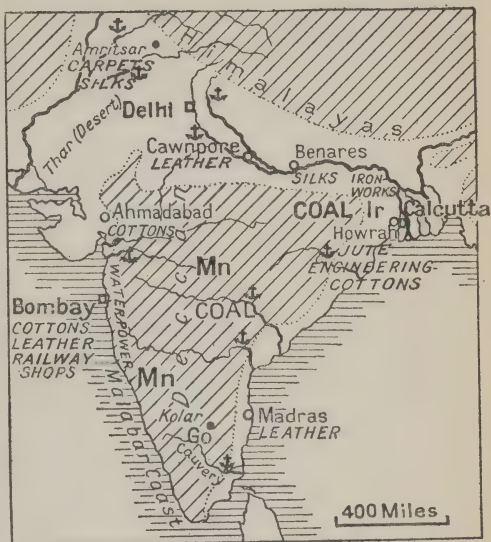


FIG. 83.—INDIA : MINERALS AND MANUFACTURES.

Gujarat ranks second to Bombay as a cotton centre. Over one-third of the raw cotton produced in India is consumed in these mills.

In the seventy jute mills there are  $\frac{1}{4}$  million hands, and the output is worth 2,500 lakhs of rupees (over £16 millions at the normal rate of exchange). Over-production in 1919-20 led to large accumulations of stock, and serious depression in 1921. Apart from these machine industries, there are 11 million *hand-loom* weavers, the muslins and damasks of Northern India, the calicoes and chintzes of Southern India, and the silks of Gujarat, Benares, Amritsar and Mandalay still being in demand. The Government makes every effort to foster this industry, by introducing improved looms, organizing exhibitions, and otherwise placing it on a proper basis. Amritsar is also a centre for the native *carpet-weaving* industry.

There is a large modern *leather* industry at Cawnpore, harness, saddlery and boots for the army being manufactured. There are also large tanneries and leather factories at Bombay and Madras, besides great numbers of small native enterprises. The stimulus given to leather working by the War has led to a permanent increase in the home consumption of Indian hides.

The *iron and steel* industry is expanding, although still relatively small, there being only two large firms, both utilising the coal and iron of the Bihar-Bengal field. The most important plant is that of Messrs. Tata (a Parsi family), situated at Sakchi, which turns out pig-iron steel rails and steel plates. There are also numbers of engineering shops at Calcutta and Howrah, and large railway shops at Bombay.

Industries that should be capable of profitable development are *match-making*, *paper-making* (with bamboo as raw material), and the crushing of *oil-seeds*. The latter are mainly exported as such, and consequently valuable cattle-foods and fertilisers are lost to India, and there is undue pressure on freight.

The War has left the country in possession of a very much enhanced capital, and there is a marked tendency for the traditional hoarding of gains to give place to investment, so that new enterprises can be financed locally, and there is every prospect of rapid progress. The fact that much money is tied up in industry, however, has made India's reaction to the world slump very severe.

**Trade Relations.**—The railway system of India is isolated, and the territories marching with her are only thinly peopled, so that only one-sixteenth of the external trade is by land. The two great entrepôts on which the railways converge are Calcutta and Bombay, and of these the former handles one-third, the latter over a quarter, of the total trade. Bombay has the advantage of a fine natural harbour sheltered from the south-west monsoon, but immediately behind it is the steep wall of the Ghats, and the relatively thinly peopled Dekkan. Calcutta is approached by the river Hoogly, which only at spring tides can be navigated by vessels drawing over 30 ft. It is, however, the gateway to the teeming population of the Gangetic plains.

Karachi, handling the wheat and other products of the Punjab and Sind, has the third largest trade—chiefly export. It has a good natural harbour, lying a little to the west of the delta, but is hampered by the lack of grain elevators. Rangoon, another river port, is the outlet for Burma, handling two bulky exports, rice and teak, besides oil. Madras has the fifth place only, offering no good harbourage, and of the lesser ports, Tuticorin in the



## India.

extreme south-east of the peninsula, and Chittagong, the outlet of Assam, may be mentioned. Both have good railway facilities.

The fact that the Burmese railways are isolated from those of India proper is a grave defect which demands immediate attention. The link-line will probably run into North Burma from north-east Assam, and eventually the Burmese system will also be joined by a Chinese line. India and Ceylon are connected by combined rail and steam ferry, and a causeway across Adam's Bridge is projected.

In spite of various defects noted above, India has better facilities for internal and external communication than any other country in Asia. The railways yield a profit to the State of nearly £10 millions annually, and employ 600,000 persons, chiefly Indians.

A recent analysis showed that at the close of the War the imports into India from the United Kingdom had declined from 63 per cent. to 46 per cent. of the total. Japan had leapt into the second place with 20 per cent. instead of 2 per cent., while the United States had taken the third place with 10 per cent. as against a previous 3 per cent. Japan had captured a very large part of the British market in cotton piece goods (India's largest import), where Britain was formerly supreme, while the United States had taken the pre-war trade of Germany and Belgium in iron and steel goods, besides part of that of Britain in the same commodities. (Preliminary figures for 1920-21, however, show  $\frac{5}{8}$  of the imported machinery and rolling stock as from the United Kingdom.) Japan also supplied matches and silk goods in large quantities, and sent small consignments of glass, earthen and enamel ware, beer, apparel, stationery and so forth. Java sent 7 per cent. of the total imports, since it is the chief external source of supply of sugar, the remainder coming from Mauritius. In 1920, however, the United Kingdom supplied 61 per cent., the United States 10½ per cent., and Japan barely 8 per cent. of the imports.

As regards exports, the United Kingdom improved her position slightly, taking 28 per cent. of the whole, as compared to a pre-war 25 per cent. The United States advanced from 7 per cent. to 13 per cent., taking much of the hides and leather that went formerly to Germany and Austria, besides oil-seeds and some rice and tea. On the other hand, the opening up of the large Brazilian manganese deposits allowed the United States to cease purchasing these ores from India.

Japan also bettered her position, from 7 per cent. to 12 per cent., chiefly by an additional import of raw cotton, of which she absorbed the proportions previously going to Germany and Austria, besides diverting part of the supply usually going to France and Italy. Over two-thirds of the Indian cotton sent abroad now goes to Japan. Great Britain was never a great purchaser of this commodity, but takes the bulk of the Indian tea (nearly 75 per cent., partly for re-export), and practically all the raw jute (for the Dundee mills). The manufactured jute is much more widely distributed, being in demand in all countries where large quantities of grain, cotton, sugar, etc., must be sacked or baled—e.g. in Australia, Canada, United States, Egypt. Cotton piece goods of Indian manufacture find a market in the East, in Ceylon, Mesopotamia, Persia, Malay, East Africa and Siam.

**General Information.**—The Banks of Bengal, Madras and Bombay (recently amalgamated as the Imperial Bank of India) act as bankers for the



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Indian Government, and purchase and re-discount internal bills of exchange. The leading banks for foreign exchange are the Chartered Bank of India, China and Australia, the Mercantile Bank of India (both with headquarters in London), and the National Bank of India. There are numbers of small native banks and many thousands of rural co-operative credit societies. The money unit is the rupee, formerly with the legally fixed value of 1s. 4d. (Rs. 15 = £1). In 1920 the value was fixed at 2s. (Rs. 10 = £1). Thus a *crore* of rupees (10 millions) became equivalent to a million sterling, and a *lakh* of rupees (100,000) to £10,000. Since that date, however, the market value of the rupee has fallen to about 1s. 5d. A uniform system of weights and measures is under consideration. The mails from London reach India (Bombay) in three weeks. There is an Imperial Trade Commissioner at Calcutta.

**INDIA, FRENCH**

See **French India**, p. 227.

**INDIA PORTUGUESE**

See **Portuguese India**, p. 398.

**INDO-CHINA, FRENCH**

See **French Indo-China**, p. 228.

**IONIAN ISLANDS**

See **Greece**, p. 256.

**IRAK**

**Area and Population.**—The Arab Kingdom of Irak, formerly Mesopotamia, includes the three Provinces of Mosul, Baghdad and Basra, (formerly under Turkish rule), and has an area of 143,000 square miles, with a population according to the census of 1920, of nearly 3 millions. Baghdad, the largest city, has about 225,000 inhabitants, Mosul and Basra each about 80,000. The bulk of the peasants are Arabs, but the townspeople are of very mixed origin, including Turks, Jews, Greeks, Syrians and Armenians. The total trade for 1919 was £19 millions, or rather over £6 per head, but a proportion of this represents transit trade, since Baghdad is an important Eastern entrepôt.

**Position and Climate.**—Mesopotamia extends from latitude 37° N. (approximately) to latitude 30° N., i.e. through the same range of latitude as the Punjab, and like that territory is bounded by mountains and

**Irak.**

deserts, and depends for its productiveness upon a single river system. To the north lie the mountains of Armenia and Kurdistan, in which the Euphrates and Tigris rise; west and south-west lie the Syrian and Arabian deserts; to the east lies the steep margin of the Persian upland. The only seaboard is the north-western shore of the almost land-locked Persian Gulf.

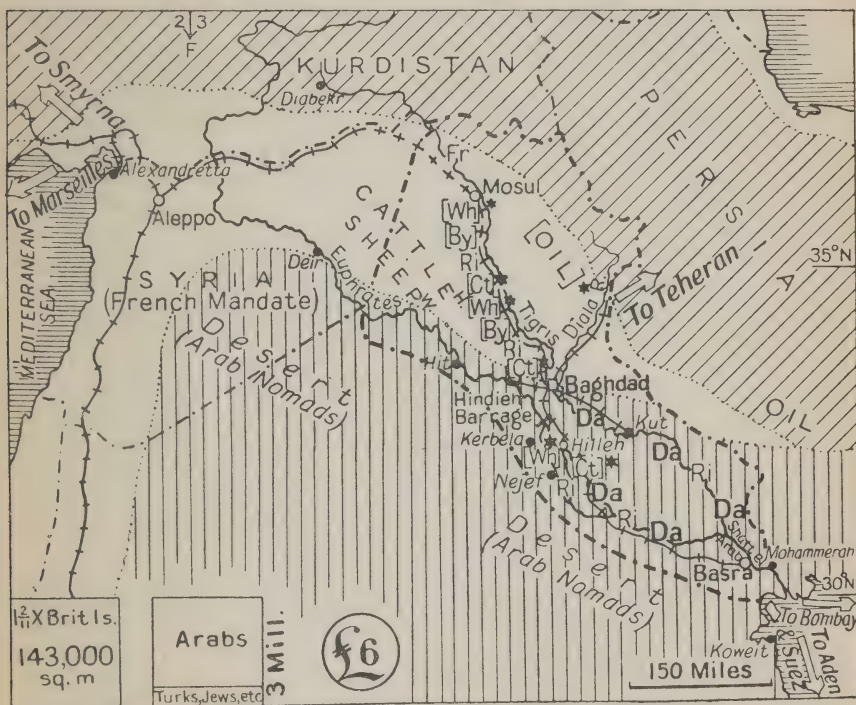


FIG. 84.—IRAK.

The chief characteristic of the climate is the intense summer heat and the entire absence of summer rainfall, so that dust is a very unpleasant feature. The winter days are warm, though it is cold at night, and in the winter season some fifteen inches of rain fall, this being the rainy season in the Mediterranean region, on the fringe of which Mesopotamia lies.

**General Physical Conditions.**—The main feature of Irak is the twin streams of the Euphrates and Tigris, which follow a general direction from north-west to south-east. Their head streams are close together, but as they leave the mountains they diverge, the Euphrates approaching the borders of Syria. Between them they enclose a belt of rolling country which becomes less elevated and more monotonously level towards the south. In the neighbourhood of Baghdad the rivers once more approach to within twenty miles of each other, and then once more diverge, flowing over a level alluvial plain, and often breaking into a complex network of

**Irak.**

channels. At some distance above Basra they unite completely, and form the Shat-el-Arab, a tidal waterway, very much encumbered by shallows and shifting sandbanks and by the bar at Fao.

Above Baghdad, Mesopotamia includes a belt of hilly and mountain country to the east of the Tigris, watered by a series of tributaries to that river. Below the city, the Persian boundary crosses the plain, and part of the left bank of the Shat-el-Arab is Persian.

After the winter rains, the northern part of Mesopotamia is a rich grass steppe, and on the hills there is a light woodland of evergreen oak, box, juniper, wild olive and scrub, with meadows along the stream banks. In the hotter and drier south, thorny shrubs and coarse herbs predominate, and in the hot summer the whole country wears a desolate, almost desert, aspect, except along the watercourses.

**Human and Economic Conditions.**—Many of the Arabs are pastoral nomads, keeping camels, horses, cattle and sheep, which they pasture on the plains during the spring and early summer, moving with them to the permanently watered valleys or the mountain pastures when the forage is exhausted. There is much wastage among the flocks and herds late in the dry season, but if alfalfa were introduced as a fodder crop, and the supply of maize increased, the **stock-raising** industry could be placed on a firm basis.

The agricultural population is mainly settled in towns and villages along the banks of the Tigris and Lower Euphrates, and there are villages also in the hill country where water is available. In the north, where there is most winter rain, the agriculture resembles that of the Mediterranean lands. Wheat, barley, peas and beans are cultivated, and there are orchards of peaches, apricots and figs, besides vineyards, mulberry plantations and orange groves. Dried and preserved *fruits* are an article of trade.

Below Mosul, where the Tigris leaves the rolling country for the plains, irrigation becomes necessary. **Wheat, barley** and beans are grown as winter crops, and for these the rain is sufficient. In spring, when the snow melts in Armenia, the river floods its banks, and **rice**, peas, and maize are sown, which are harvested in autumn. Oranges are also grown. Still farther south, the annual deposits of silt have so raised the river's bed and banks that it flows above the general level of the country, bordered by natural levees, at the foot of which are swamps. Here draught oxen and buffaloes are pastured. Water is lifted by shadufs or camels on to the fields by the river. The lowest land is used for rice, that somewhat higher for maize and millet, and the highest land, which is only watered in full flood, is sown with wheat and barley. Below Baghdad on the Tigris and Hilleh on the Euphrates, the region of **date** groves begins. These increase in importance until along the Shat-el-Arab they extend unbroken for 100 miles, in a strip from a half to two miles wide. Here they are irrigated, not by shadufs, but by the action of the tide, which dams back the river water twice daily, and allows it to flow into the network of canals among the groves. This region produces 80 per cent. of the world's commercial supply of dates, only one-third of the crop being consumed locally. There is also, in spite of the large local consumption, an export of nearly 70,000 tons of rice. A little cotton is grown, and investigation has shown that there is good **cotton** land in abundance round Mosul, southwards to Baghdad and around Hilleh. A more scientific method of irrigation, such as was initiated by



## Irak.

the completion in 1913 of the Hindieh Barrage on the Euphrates, would bring vast areas under cultivation, and the region would, like the Punjab and Egypt, make important contributions to the world supply of grain and cotton. Minor products would be dates, pulses, gums, licorice, wool and hides.

In the Punjab, however, which is a quarter the size of Irak, there are  $4\frac{1}{4}$  million people, and in Egypt nearly 13 millions, while here there are under 3 millions, so that the labour problem is the fundamental difficulty. The Arab, given security from over-taxation and oppression, is a good worker, and the great increase of crops that took place under the supervision of the Army of Occupation indicates that even with the present population, given good government, transport facilities, and irrigation works, a large foreign trade could be built up under European direction.

Mesopotamia has little *mineral* wealth, apart from the bitumen springs of Hit, and an oil-field in the Middle Tigris valley, near Mosul, which awaits exploitation. The Persian oil, stored on the bank of the Shat-el-Arab, is at present the nearest available source of fuel.

**Trade Relations.**—The country offers a market for cotton piece goods (the largest import), sugar, coffee, tobacco, metal goods, machinery and agricultural implements, besides minor domestic wares such as soap, matches, glass and earthenware. For all of these there would be an increased demand as the standard of living rose with the development of the country.

Although with the completion of the Baghdad railway, Smyrna in Asia Minor and Alexandretta in Syria will become ports for Mesopotamia, the gateway for cheap sea-borne traffic will continue to be at Basra, which stands 70 miles from the sea on the Shat-el-Arab. Ocean-going steamers can reach this port, where there is now first-class accommodation and wharfage, or they can continue another 20 miles up-stream before transshipping the cargo to river steamers, which proceed to Baghdad. Both the Euphrates and Tigris are difficult rivers, needing to be entrained and embanked, so that they scour out their channels. At present the narrows and shallows restrict navigation to native coracles and rafts except on the sections mentioned.

Baghdad is finely placed as an inland entrepôt, on which caravan routes from Persia, Mosul, Aleppo, Damascus and the Nejd converge. The railway reaches Baghdad from Basra via Hilleh, and a branch goes up the Diyala valley to the Persian frontier. The main route continues north past Samarra, and thence will be constructed to Mosul, from which point it will turn westward to link (via Nisibin) with the already completed section from Smyrna to Jerablus on the Euphrates. Trade with Irak is largely via Aden or Bombay, and Indian goods form a large proportion of the imports.

**General Information.**—The Imperial Ottoman Bank, the Eastern Bank, Ltd., and the Imperial Bank of Persia (each with a London office) have branches at Baghdad.

## IRELAND

See **British Isles**, p. 84.

**ITALIAN LIBYA (TRIPOLI AND CYRENAICA)**

**Area and Population.**—Libya is made up of two separate colonies, Tripoli and Cyrenaica, each administered by a Governor. The total area is about 406,000 square miles (the exact boundaries are not delimited), and the population is estimated at 6 millions, of whom rather more than half a

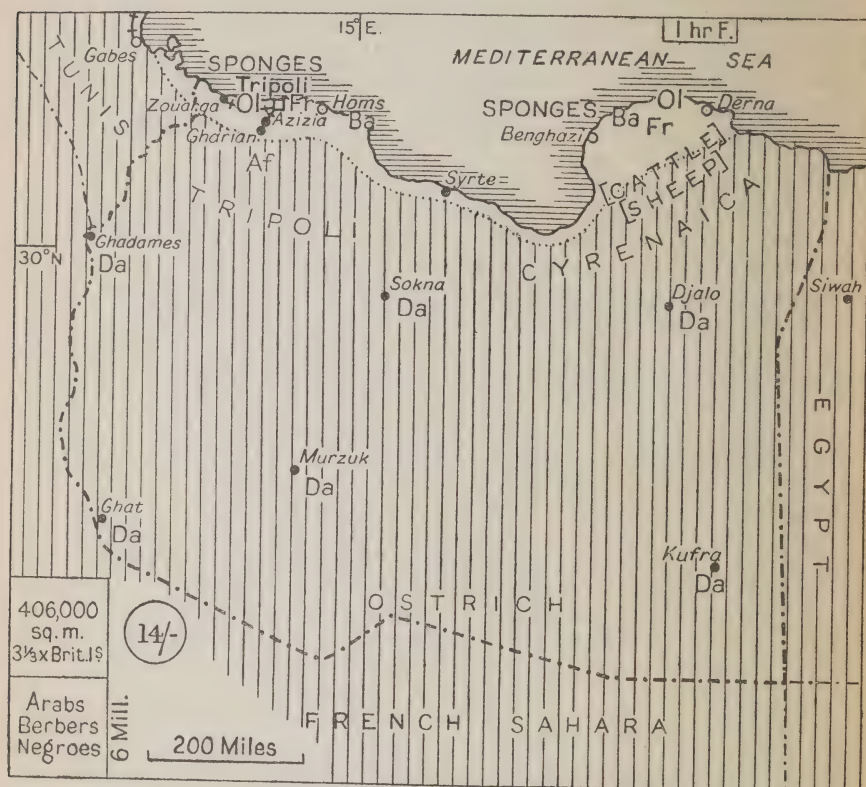


FIG. 85.—ITALIAN LIBYA.

million are in the settled coastal belt. Negroes, Arabs, Berbers and Jews make up the population, which also includes about 6,000 Maltese and Italians. Tripoli, the capital and chief port of the colony of that name, has 73,000 inhabitants. Benghazi, the capital and chief port of Cyrenaica, has 35,000. The foreign trade was £2½ millions in 1917, and over £4 millions in 1918, but the imports have ten times the value of the exports, since they are mainly for the upkeep of Italian troops and officials, or for development work.

**Position and General Physical Conditions.**—Libya lies along the Mediterranean coast, between Tunis and Egypt, extending from about 33° N. to an indefinite distance into the unmapped Sahara

## Italian Somaliland.

Desert, and marching with Egyptian territory in the Libyan Desert. The coastal plain of varying width has light winter rains, and a very hot dry summer. Inland there is a plateau region, which is loftiest in the peninsula of Cyrenaica. The latter region is the best watered area, but owing to the limestone soil there is little surface water. The olive, cypress and other Mediterranean trees, besides palms, are typical of the coast belt, and of the valleys cut into the highlands. On the elevated land behind the Tripoli coast there is much esparto grass, while the plateau of Cyrenaica is covered with rich natural pasture. The interior is of a desert character, with a few important oases.

**Human and Economic Conditions.**—Agriculture is carried on in the coast belt, the chief crops being *olives* and *barley*, which are already in excess of local needs, and might become important commercial products. **Esparto grass** is brought down on camel back from the interior of Tripoli and is exported. Owing to the low rainfall, a large proportion of the inhabitants are pastoral nomads, rearing **cattle**, sheep, goats and camels, which yield wool and hides for export. An important stock-raising industry could be developed on the Cyrenaica highlands. Caravans cross the desert between the coast region and the Sudan, halting at the oases, such as Ghadames, Ghat and Murzuk, where *dates* are grown, besides grain and fruit for local use. These caravans carry on a local traffic with the Central Sudan, but they also bring back **ostrich feathers**, which are exported. Of considerable importance is the **sponge** fishery, which in a good year may be worth £80,000. *Bananas* are grown at Derna.

The Italians are spending large sums on the development of the country, and several short lengths of railway have been built from Tripoli and from Benghazi.

**Trade Relations.**—Cotton textiles are among the leading imports for native consumption, those of Great Britain competing with those of Italy, and to a less extent with those of France. Of imported food-stuffs, coffee, sugar and rice are the most important, and in addition matches (from Belgium or Italy), petroleum and coal are in demand. Feathers go largely to France, and esparto grass to the United Kingdom.

**General Information.**—Arabic is generally spoken, and has with Italian the status of a European language. The *lira* is the unit of currency, and the leading Italian banks operate in the country. The Banco di Roma has a branch in Benghazi. The local measure of weight is the *oke*, equivalent to  $2\frac{3}{4}$  lb. The two capital cities have direct cable connection with the United Kingdom via Malta. There is a British Consul at Benghazi and a Vice-Consul at Homs, a leading town of Tripoli.

## ITALIAN SOMALILAND

**Area and Population.**—Italian Somaliland includes Protectorates over two native Sultanates in the north, and a Colony in the south. The total area is nearly 140,000 square miles, and the population about 650,000, i.e. it is a sparsely peopled country. The Sultan are administered by Commissioners, and the Colony by a Governor resident



**Italy.**

at Mogadisho, the largest town, with 14,000 inhabitants. The total trade is insignificant, little more than £ $\frac{3}{4}$  million.

**Position and General Conditions.**—Italian Somaliland forms the east coast of the Horn of Africa, stretching from the Gulf of Aden to the navigable Juba River, which by recent treaty with Great Britain is now wholly Italian, together with the port of Kismayu. Stretching from half a degree south of the Equator to 12° N. latitude, the territory has a very hot climate, and as the alternating monsoon winds blow parallel to the coast, the rainfall is slight. Hence the vegetation is scanty, consisting of drought-resisting shrubs and herbs, and the main occupation of the Somalis is the rearing of *cattle, camels, sheep and goats*, the life being nomadic. Since the Italian occupation agriculture has developed to some extent, and **maize, millet**, and a little **cotton** are grown with the help of irrigation from the intermittent rivers. The trade is in the hands of Arab and Indian merchants, and goes *via* Aden or Zanzibar, in Arab dhows. Mogadisho (Magadoxo), the chief port, is a mere roadstead.

**General Information.**—The unit of currency is the rupee. There is wireless connection between different parts of the country, and *via* Massawah with Italy.

## ITALY

**Area and Population.**—The Kingdom of Italy (including the large islands of Sicily and Sardinia) has an area of 118,000 square miles (estimated), and a population of 38 millions, i.e. it is slightly smaller than the British Isles, and has 9 million fewer inhabitants. The Trentino, essentially the Alpine valley of the upper Adige, with the Adriatic peninsula of Istria including Trieste, were obtained from Austria by the Peace Treaty, their population being predominantly Italian. Italy also holds a mandate for the administration of Northern Albania (with Scutari) and for the vilayet of Konia in Asia Minor. The foreign trade in 1919 amounted to £868 millions, or nearly £23 *per capita*, the value of the imports being over three times that of the exports. In 1913 the trade was only £6 10s. a head, and imports represented 55 per cent. of the total. The surplus of imports is partly accounted for by the money spent in the country by tourists; by the earnings sent or brought home by Italians who in large numbers go abroad to work for longer or shorter periods; and by the interest on Italian capital invested abroad. In 1920 the imports fell off and the exports increased in value, so that the former were only double the latter.

The capital of Italy, Rome, has 650,000 inhabitants, but it is surpassed in size by Naples, which is an industrial centre and a seaport, besides housing large numbers of rural workers, and totals a population of 723,000. Milan, on the Lombardy plain, has 670,000 people, and Turin, in Piedmont, has 450,000, both being commercial and industrial centres. Palermo, in Sicily, has 342,000, and Genoa, the premier seaport, 300,000. Florence, Catania, Bologna, Venice, Messina, Leghorn, Bari, Padua and Ferrara all have over 100,000, but, as in the case of Palermo and Naples, many of these city dwellers are peasants who go out to their fields and orchards in the countryside, especially in the south, where small holdings are the rule.

## Italy.

The birth-rate of Italy is high, and the annual surplus of births is normally nearly half a million. Consequently there is great poverty, and large numbers of Italians emigrate, either temporarily or permanently, going especially to the United States, Argentina and Brazil, and also to other European countries. At present large numbers of Italians are working in



FIG. 86.—ITALY.

French mines, while at the request of the Government of Haiti a party was sent out to introduce intensive rice culture into that country. The percentage of illiterates, though declining, is still high, being as great as 70 per cent. in the poor southern province of Calabria, although it is not more than 10 per cent. in the north, e.g. in Piedmont, where social and industrial conditions generally are more advanced. Italy has twenty-one Universities, nearly all

**Italy.**

of very old foundation, averaging 1,500 students at each. There are also large numbers of institutions giving technical instruction.

**Position, Climate and General Physical Conditions.**

—Italy is a peninsula aligned from north-west to south-east, and occupying a central position in the Mediterranean Sea, which, together with Sicily, it divides into a western and an eastern basin. Only about 100 miles separate Sicily from the African coast, and near the gateway thus created between the west and the east lies the British possession of Malta. Immediately to the east, Italy faces the Adriatic Sea, and the Balkan Peninsula on its opposite shore. Since the southern outlet of this sea, the Strait of Otranto, is only thirty miles wide, Italy is keenly interested in the political and economic conditions of the Balkan States.

Italy falls naturally into three divisions: the Alps, the Lombardy Plain and the Peninsula proper. The Alps fall very steeply to the Plain in the west and north, and the tributaries of the Po form important routeways to the chief passes—the Dora Riparia to Mont Cenis, the Dora Baltea to the St. Bernard (a carriage road only), the Toce to the Simplon, the Ticino to the St. Gotthard, and the Adige (which, however, flows parallel to the Po without joining it) to the Brenner. The southward opening valleys have a warm and sunny climate contrasting sharply with that of the Swiss Alps; and the beautiful lakes which partly fill them—Maggiore, Como, and Garda—are a favourite resort. The level Lombardy Plain is thickly floored with an alluvial soil derived from the mountains, and is exceedingly fertile. The summers are very hot and the winters somewhat cold, while the rainfall is moderate in the west and diminishes towards the east. Irrigation canals are, therefore, common. At the Adriatic extremity the Po has built a large delta, and the land is fringed with swamps, lagoons and islets, including those on which Venice stands. In the west the hilly Piedmont region is interposed between the Alps and the level Plain. The main routes and towns of North Italy lie, it will be noticed, away from the river once it leaves Piedmont, since they are built on the firmer ground at the edge of the flood-plain.

The features of the Peninsula proper are determined by the Apennines. These mountains rise steeply from the shores of the Gulf of Genoa, and traverse the length of the country, sweeping southwards through Calabria, and then westwards through Sicily. The cultivable lowlands form a series of isolated valleys and small plains, such as the Arno valley in Tuscany, the plain of Naples in the west, and the plains of Apulia in the east. The climate of these lowlands, and of the lower hill slopes, which are also under cultivation, is distinguished by a dry and very hot summer, and a mild, rainy winter—pre-eminently the climate for tree and fruit culture.

The Alps, with their snow and glacier-fed streams, and the Northern Apennines with a fairly heavy and steady rainfall, are important sources of water-power. Farther south the rivers dwindle in volume during summer and autumn and are of little use. The south-eastern margin of the Tyrrhenian Sea, from Naples to Palermo, is a region of volcanic activity (Vesuvius, Etna), and is also subject to disastrous earthquakes, which within recent years have caused the loss of tens of thousands of lives (e.g. at Messina). Italy marches with France, Switzerland, Austria, and Jugo-Slavia.

**Human and Economic Conditions.**—Italy is essentially an



## Italy.

agricultural country, although not without important industries, and generally speaking farming methods are primitive in character, although least so in the north, where the farmers are better educated, and where the climate and soil conditions allow of double cropping. Manures are used far less than in France and Belgium, so that altogether the country is producing below capacity.

The two crops that lead throughout Italy (except on the mountains) are **wheat** and the **vine**, each occupying over 10 million acres, or together one-third of the cultivated land. For both of these plants the dry, hot summer following a wet spring is admirably suited. In the case of wheat, the finest variety, durum wheat, much sought after for the manufacture of macaroni and other pastes, comes from Apulia, in the lee of the southern Apennines, where the rainfall is very low. The yield of wheat in a good year is 5 million tons—not far short of that of France, and similarly the wine production of 1,000 million gallons is two-thirds of the output of the premier wine country. The best known Italian wines are the Chianti of Tuscany, the Asti of Piedmont, the Lachrymae Christi of Naples, and the Marsala of Sicily. The export varies greatly according to the abundance of the vintage, and according to the condition of the market, but wines are usually within the first half-dozen exported commodities as regards value. The secondary cereal crop is *maize*, which does especially well on the Lombardy Plain, which has some summer rain; polenta, prepared from maize meal, is a staple food of the peasantry. In the same region, and for the same reason, *hay* and *fodder* crops do well, while *rice* is grown under irrigation, the yield averaging half a million tons. In peninsular Italy, and in the southward facing Alpine valleys, the **olive** takes on very great importance, both for local consumption, the oil being a substitute for butter and other fats, and as a money crop, although the sale is mainly for consumption in other parts of the country, or for packing fish, etc. Lucca oil is, however, greatly sought after abroad. A crop of very local distribution is *hemp*, the main fields being in Emilia, i.e. in Northern Italy, with Bologna as the principal market, but the Naples hemp is also of very fine quality. This commodity is an important article of export, and the more so now that the Russian hemp is no longer coming into the market. About 60 per cent. of the output is sent abroad. The mulberry finds suitable conditions practically throughout the country, and **silk** is the staple of Italian trade, although the competition of the Far East is keenly felt. The greatest production is in the north—Piedmont, Lombardy and Venetia—and Milan is the most important silk-conditioning centre in Europe, handling also the imported cocoons from Turkey, the Levant and the Orient. Turin is a secondary market. The **sugar-beet** does well on the Plain, and some 170,000 tons of sugar are produced, which does not, however, quite fill the local demand.

A little *cotton* is grown in Sicily, and it is claimed that the output could be increased to 50,000 bales, but the summer drought renders the crop precarious unless irrigated. Of great importance throughout the lowlands and hillsides of peninsular Italy are the orchards, **figs** and other dried fruits being an important article of food, while **almonds** (especially from Sicily and Sardinia) and **pistachio nuts** are valuable exports. Even more so are the **oranges** and **lemons** of the south, and especially of Sicily, which is the main source of supply of lemons to the whole of Europe. The same sunny regions grow **tomatoes**, which from being an everyday article of local diet

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have developed into an important trade commodity, the export of tinned tomatoes and tomato purée being worth well over £1 million, and finding a very wide market. *Fresh fruit* (e.g. table grapes) and *vegetables* (e.g. early potatoes) are normally sent by express across the Brenner Pass into Austria and Germany, which are also a market for the *flowers* grown in the Italian Riviera. On the western Alps and Apennines the sweet *chestnut* grows in abundance, and affords the principal food-stuff and money crop of the peasantry, who are usually very poor.

The animal industries of Italy vary in different parts of the country. Horned **cattle** are most numerous in the north, both on the Alpine pastures and also on the Lombardy Plain, where they are stall-fed upon the abundant hay and fodder crops. Hence in these regions dairying is most important, both *butter* and *cheese* being largely produced. The Gruyère of the Alps, and the Parmesan and Gorgonzola of the Plain are well-known varieties that are exported. Milan and Reggio (Emilia) are the leading cattle markets. Cattle number  $6\frac{1}{4}$  million, while there are nearly 12 million **sheep**, pastured mainly on the Apennines, and on the Sardinian and Sicilian mountains in summer, and driven down to the lowlands on the approach of winter. Certain breeds are kept for their milk, and the wool is on the whole somewhat harsh. *Goats* are most numerous in the south and in Sicily and Sardinia; they number over 3 millions. As is usual in countries where much grain is grown, poultry are very numerous, and **eggs** are an article of export, the largest output being from the northern Plain.

The fisheries of Italy are merely of local importance, and the characteristic *tunny*-fishing off the coasts of Sicily and Sardinia, and in parts of the Tyrrhenian and Adriatic Seas has declined. Much stock-fish (dried cod) is imported, since Italy is a Roman Catholic country.

The mineral wealth of Italy is not great, the absence of coal being a very great handicap. There are, however, *lignite* beds, which have necessarily been more actively worked during recent years; the most important are those of Tuscany (Valdarno) and Umbria (Spoleto) on the flanks of the Apennines, and those of south-west Sardinia (Iglesias). **Iron** ores are abundant in the Isle of Elba, which produces  $\frac{3}{4}$  million tons annually, and new mines have been opened up in north-west Sardinia (Nurra), and at Cogne in the Alps near the Val d'Aosta. The former are phosphatic and the latter hematite. The total is, however, insufficient for the country's needs. There are besides *lead* and *zinc* mines in Sardinia, *mercury* in the peninsula opposite Elba (100 tons annually), and a little *manganese* near Carrara. Bauxite or *aluminium* ore is abundant, and new works have been established at Pescara on the Adriatic coast. It is only, however, in respect of **sulphur** that Italy has a leading position, the sulphur mines of Sicily (Caltanissetta) having a world importance. The value of the output is about £4 millions, and the greater part is exported. The competition of the newly opened sulphur mines of the United States is, however, being felt. Besides minerals, Italy has building and decorative stones of great value, especially the famous *marble* of Carrara. The *quicksilver* (mercury) mines of Idria, formerly Austrian, now lie within the boundaries of Italy. Their output is about 840 tons.

As has already been mentioned, Italy has an abundance of water-power, which owing to the coal shortage has lately been more widely, systematically, and economically used. It is estimated that  $1\frac{1}{4}$  million h.p., out of a possible



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5 millions, are now harnessed, and among the reforms are the creation of artificial lakes to obviate the need of adjusting the plant to the minimum flow of water (the summer drought makes this very low in the south), and the linking up of the various power stations so that current from the north (with a summer water maximum) may supplement that from the south (with a winter maximum). The electrification of the railways where traffic is heaviest has been begun, the sections across the Apennines behind Genoa and Savona being complete, and that across the same range between Bologna to Florence being well advanced (1921).

Much of this power is used in the textile industries, among which **silk**-spinning, and to a less extent silk-weaving, takes a leading place. There are 2 million spindles in the factories and workshops, and about  $\frac{1}{4}$  million workers, chiefly women and girls, are employed. The chief production is from Piedmont, Lombardy and Venetia, where raw material is most abundant, as well as power. There is, however, a secondary centre at Naples, which with its large population and port facilities is a growing industrial centre. The same city has a large *cotton*-manufacturing industry, although as regards cotton again the bulk of the spindles (totalling  $4\frac{1}{2}$  millions) and of the looms (164,000) are to be found in the northern towns. The number of hands employed is less than in the silk industry, but the value of the output is greater. Sewing cottons and coarse or heavy materials are turned out from the Italian mills, and they find an outlet in Colonial and Eastern markets—e.g. Libya, Algeria, the Levant, and India. The raw cotton (about  $\frac{3}{4}$  million bales) is imported from the United States and Egypt and takes usually the second or third place on the list of imports.

The **iron** and **steel** industry is handicapped by the lack of coal and the small supplies of iron ore, but some  $\frac{1}{2}$  million tons of pig iron and 1 million tons of steel are produced. The blast furnaces are mainly on Elba and at Piombino on the mainland immediately opposite, while among large steel works are those of Genoa and Terni (Umbria). The Martin furnace is mainly used, so that there is a lack of basic slag, so valuable as a cheap fertiliser. The **electro-chemical** industries have, however, made great strides, and large quantities of cyanamide (a nitrogen product) are turned out, besides calcium carbide (for acetylene gas) at Terni, superphosphates and carbonic acid at Milan. There are also chemical works at Naples, turning out sulphuric acid and the derivatives of citric acid (from lemons, etc.), besides cream of tartar prepared from the lees of wine. Electro-metallurgy is also engaging attention. Among Italian engineering products sent abroad, the best known are the "Fiat" motor-cars from Turin.

Characteristic of the country is the **glove** industry of Milan, Naples and Turin, for which local kid-skin is the raw material. The finished product competes in quality with the gloves of Grenoble, and there is a considerable export. Similarly, the *straw-plait* and *straw-hat* industries, associated with Tuscany and Leghorn, have arisen owing to the abundance of local raw material. America and Paris buy hats from Italy. At Milan there are large *rubber* works, and a speciality is insulated cable, which is sold abroad.

In spite, however, of the considerable local importance of the manufactures enumerated, Italy's relations with the West of Europe and with the United States are based on her ability to sell raw silk, hemp, sulphur, wine and specialized food-stuffs in return for manufactured goods, and for certain raw materials which the country lacks.



**Trade Relations.**—Although Italy grows so much wheat, it is insufficient for the home market, since the *per capita* consumption (in the form of macaroni, spaghetti, etc., as well as bread) is very great. Supplies are drawn from the Argentine and from the United States, the latter country also supplying raw cotton and manufactured goods. Hence, during the last few abnormal years, when the price of these commodities has been enormously inflated, the imports sent from America to Italy have been out of all proportion to the goods sent from Italy in return. Similarly, the necessity of importing British coal at a very high price determines an adverse balance of trade with respect to the British Isles. Generally speaking, Italy is in the position of having only luxuries, or commodities which she produces on a small scale, to offer these countries in return for necessities. The position with regard to France and Switzerland is more favourable, since to both these countries raw and spun silk in bulk is an essential, but recent figures of trade with India are more typical of the general situation. Imports from that country totalled £6½ millions, and included wheat, raw cotton, jute (for bags) and oil seeds, while exports to India reached only £1½ millions, mainly cotton and silk goods, with small consignments of miscellaneous food-stuffs, chemicals and manufactures. Preliminary figures for the first eight months of 1920 showed Italian imports as a whole about double exports. One-sixth of the imports (16 per cent.) came from Britain, coal being the heaviest item, followed by wool and woollens, iron and steel (unmanufactured or partly manufactured), and cottons. The return trade was only 12½ per cent. of the total, hemp standing first, followed by silk and silk goods, and then by motor-cars and lorries.

The bulk of the trade of Italy passes through Genoa, which serves Lombardy and Venetia, and is also an entrepôt for Swiss trade (via the St. Gotthard and Simplon routes). Genoa has, however, a rival in Savona, situated rather more to the west, and having the most favourable position with respect to the important province of Piedmont. Naples is the chief port of peninsular Italy, for Rome has at present no harbour: a commencement has been made, however, of a deep-sea harbour at Ostia, which will be an outport for the capital city. Leghorn is the port of Tuscany, and ranks next to Naples. Catania is the leading port of Sicily, but the trade is shared by Palermo and Messina. The newly acquired first-class port of Trieste enters into competition with Venice in so far as it serves Italian territory. It is, however, the natural outlet for Austria, and an agreement has been entered into whereby that country will send at least 50 per cent. of her export through Trieste in return for a remission of charges and dues. The immediate hinterland of Trieste is not rich, yielding merely timber and some farm produce.

**General Information.**—The unit of currency in Italy is the *lira*, equivalent to the franc, and so normally of value 25·22 *lire* to the pound sterling. The three authorized banks of issue are the Banca d'Italia, the Banco di Napoli, and the Banco di Sicilia. Government paper is also in circulation, gold having been entirely withdrawn. The Credito Italiano has London offices. The metric system of weights and measures is employed. Mails take three days to reach Italy. There are British Consuls-General at Genoa, Naples, Trieste and Milan, besides Consuls or Vice-Consuls at Turin, Brindisi, Leghorn, Florence, and elsewhere. A Commercial Counsellor and a Commercial Secretary are attached to the British Embassy.

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## IVORY COAST

See **French West Africa**, p. 231.

## JAMAICA

See **British West Indies**, p. 114.

## JAPAN

**Area and Population.**—The Empire of Japan consists of Japan Proper, a group of four islands—Honshiu (Mainland), Kiushiu, Shikoku and Hokkaido (Yezo)—together with the southern half of Sakhalin, known as Karafuto, which belongs to the same geographical group, although ranking as a colony; it includes also the island of Formosa, now called Taiwan, the Kurile Islands, called Chishima, the Luchu Islands, called Riukiu, and the Pescadores Islands, called Hokoto, besides the large mainland peninsula of Korea, called Chosen, and a number of smaller islands.

Japan Proper covers 140,000 square miles (British Isles 121,600 square miles), and the neighbouring island groups bring the total up to 148,750 square miles. Chosen has an area of 84,700 square miles, Taiwan 13,900 square miles, and Karafuto 13,250 square miles. The population of Japan, apart from the three last-named outlying dominions, was 56 millions in 1920, that of Chosen  $17\frac{1}{2}$  millions, Taiwan 3·7 millions, Karafuto 106,000, giving a total of 77 millions. The increase on this figure is nearly a million annually.

Taiwan and Chosen are treated under separate sections, the remainder of this section referring to Japan.

The total foreign trade of Japan Proper amounted in 1918 to £370 millions, about treble the pre-war figure, and giving a per capita trade of £6 10s. Of this total, 54 per cent. represented exports, and 46 per cent. represented imports, the balance of trade having been in the opposite sense in 1914 and previous years. The Japanese trade exceeded by £100 millions that of British India for the same year, where the per capita figure was only £1 1s., but on the other hand it was far less than that of Canada, which has only one-seventh of the population of Japan. The average figures for 1919–20 give a total of £432 millions, of which exports represent 48 per cent., imports 52 per cent., i.e. the balance was again reversed. Since the balance of international indebtedness in Japan's favour is something like £200 millions, an excess of imports is now to be expected.

Like China, Japan has a large city population, a fact to be attributed to the high development of the native civilisation, involving a multiplication of handicrafts and of commercial activity even before the Industrial Revolution, and also to the practice of intensive cultivation on very small holdings which makes it possible for large numbers of land-workers to live in the towns and yet be near their fields. The more favourably located of these old cities have become the centres of industrial activity on western lines, since they provided abundance of cheap labour and an immediate market for the output. Tokio, the capital city, on Mainland, has  $2\frac{1}{10}$  million inhabitants; Osaka, now the leading manufacturing town, has  $1\frac{1}{2}$  millions; Kyoto, the old capital,

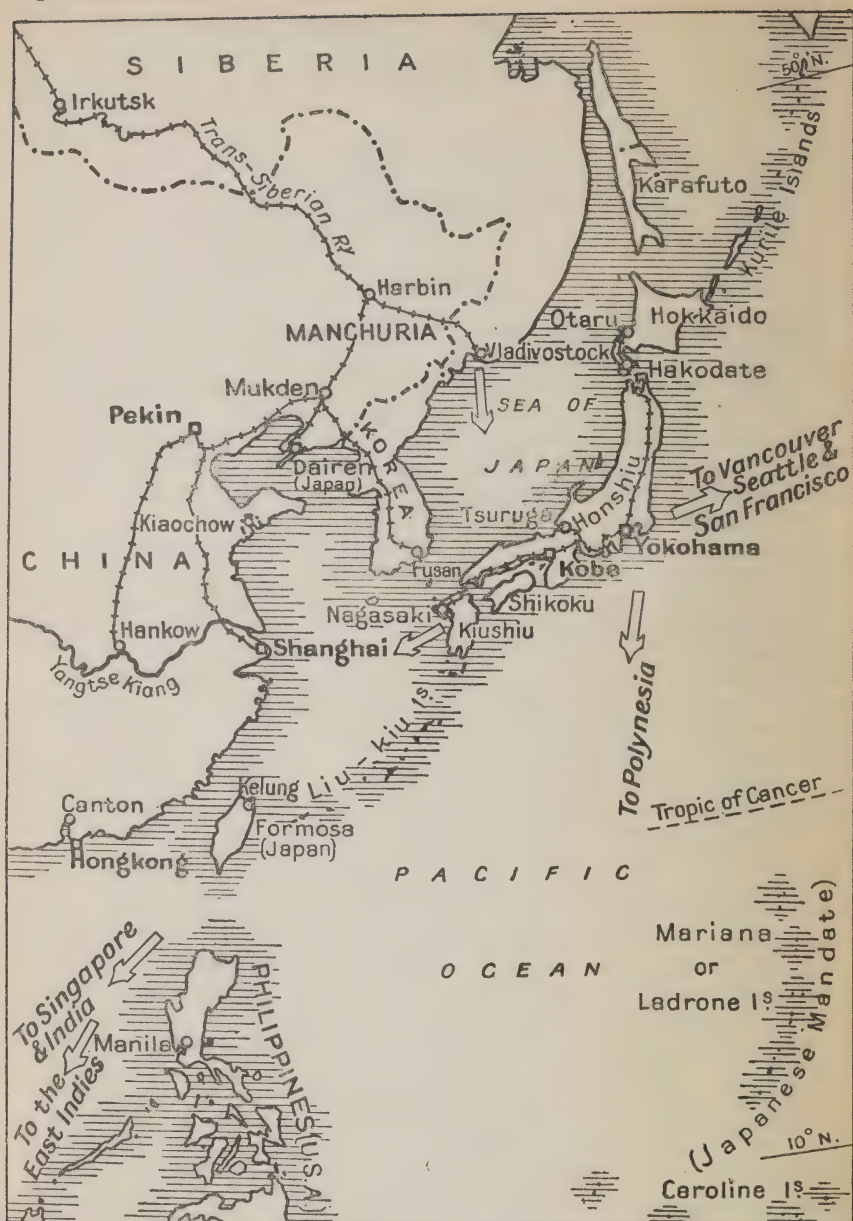


FIG. 87.—JAPANESE EMPIRE.

has over half a million ; while Kobe and Yokohama, the leading sea-ports, have 600,000 and 420,000 respectively. Besides these there are nine other towns with over 100,000 inhabitants, and thirty-one with between



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50,000 and 100,000. The density of population, except in the high mountains and in the north, is as great as that in the industrial areas of England and Belgium.

**Position and Climate.**—Japan (including Karafuto) stretches from 50° N. (the latitude of Land's End) to 31° N. (approximately the latitude of Shanghai and New Orleans), and lies off the east coast of Asia in a region dominated by onshore (S.E.) and offshore (N.W.) monsoon winds. Consequently the climate ranges from warm temperate in the south to cool temperate in the north, while throughout there is a plentiful summer rainfall. The winter monsoon from Siberia is cold, and brings moisture gathered from the Japan Sea. Thus the west and north have a bleak, inclement winter, but the east and south are sheltered from these winds, so that the winters are short and mild, and fairly dry. It is in the regions where these pleasant winter conditions prevail, and where, besides, there is the greatest summer heat combined with heavy rainfall, that the harvests are most abundant, double cropping being possible, and it is here, therefore, that the bulk of the population is found. A great number of the large cities, including Tokio, Osaka, and Kobe, lie on or near latitude 35° N., approximately the latitude of Malta and of South Carolina (U.S.A.).

**General Physical Conditions.**—The Japanese Islands are mountainous throughout, so that there are neither slow navigable rivers, nor extensive plains, and the proportion of arable land to the total area is very small. Many of the mountain peaks, e.g. Fujiyama (12,000 ft.), are volcanic, and earthquakes, usually of a minor character, but occasionally severe, are of frequent occurrence. Disasters to buildings and to growing crops may also result from the typhoons which pass northwards through the China Seas and sometimes reach Japan.

The coast is very indented, so that there is an abundance of deep and sheltered harbours, and a large proportion of the population are fishermen and seamen. Communication by coasting vessel is especially easy on the island-studded Inland Sea, which is partly enclosed by the western promontory of Mainland, together with the large islands of Kiushiu and Shikoku.

The Japanese Group as a whole has a crescent shape, the "horns" pointing towards the mainland of Asia, with the result that Karafuto (in the north) is only a hundred miles from Amur Province, and Kiushiu (in the south) is but little farther from Chosen (Korea). The mountains are forested, except where the lower slopes have been cleared for agriculture or stripped for fuel. The trees include the cedar, camphor, lacquer, paper mulberry and bamboo in the warm south, the oak and beech in Hokkaido, besides larch, spruce and pine in Karafuto. The presence of these forests, together with the restricted area of arable land, precludes the rearing of live stock other than for draught purposes, so that milk and meat are absent from the Japanese dietary, while fish is largely eaten with cereals, and vegetable oils serve as a substitute for butter.

**Human and Economic Conditions.**—The Japanese are of Mongol stock, but there has been a blending with the old Ainu race (which has not the characteristic straight hair, beardless face and almond eye of the Mongol), and a late infusion of Korean blood, and probably at some early date there were Polynesian immigrants. This admixture of races is due to the easy access to the Japanese Islands from the continent of Asia, and





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widely produced, the quantity of cocoons being 35 million bushels (1919), which gives Japan the premier place in the world's raw silk production. The long warm summers of southern Japan promote the growth of an abundance of leaves on the mulberry tree, which like the tea-shrub, does well on hill slopes.

*Tobacco* is grown in sufficient quantities to supply local needs, but the home-grown crops of cotton and sugar, both commodities in universal demand, are quite inadequate. The deficiency at home of food-stuffs and raw materials needed by her expanding population led Japan to seek them in neighbouring countries, and ultimately to acquire Korea and tropical Formosa, both capable of surplus production. **Beans** and **peas**, which are in general demand, and play an important part in crop rotation, are widely grown, especially in Hokkaido, and since the home crop is supplemented from Korea and China there is a surplus for export. Land reclamation schemes now in progress, coupled with advances in scientific agriculture, promise some increase in home-grown foods, with the exception of rice, but Japan Proper cannot hope to be self-supporting in this respect.

The **camphor** crop, formerly very important, has greatly decreased, the bulk coming now from Formosa. This commodity is a Government monopoly, as are tobacco and salt, the three together yielding a revenue of about £8 millions.

Japan is not in a very favourable position as regards *minerals*, the deficiency in iron ore (81,000 tons iron produced in 1918) being specially marked, so that three-fourths of the supply needed for the expanding iron and steel industry must be imported. The **iron** is found in various localities on Mainland, whereas the **coalfields** are in Kiushiu and Hokkaido. The coal raised amounts to 31 million tons, and since the southern fields are near Nagasaki and Shimonoseki there is an export of bunker coal, but there is also an import from Taiwan and China. **Copper** is the only mineral of which there is a good surplus, the amount raised being over 100,000 tons, of which about one-third is exported to Europe. The chief mines are on the west of Mainland and in Shikoku. There is also **petroleum** in Japan (2·8 million barrels of 42 gallons in 1917), but the quantity is insufficient for the country's needs, and the yield has steadily declined for the last five years. The chief field is in Central Hōnshiu, but there is a very promising one at Akita, farther north, and a third in Formosa. **Phosphates** are mined on the little island of Rasa, 500 miles east of Formosa, where the mineral is of high quality and the reserves very large. About 50,000 tons are produced annually.

The *fisheries* are of considerable value, the marine products (which include seaweed for paper) being worth £17 millions in 1918. The most important fishing grounds are in the cool seas round Hokkaido and Karafuto, which resemble the seas round Maine and Nova Scotia in the same latitudes, being well stocked with **cod** and **herring**, while there are **salmon** in the rivers. The fish are valuable not only as a staple article of diet, but also as a cheap and abundant manure. Japanese schooners also fish the more northern Siberian waters.

The *manufactures* of Japan received an enormous impetus during the War, with the result that numbers of small, ill-equipped, ill-managed factories sprang into existence, turning out goods that were often inferior, or not up to sample and specification. Hence the reputation of Japanese commodities in foreign markets has suffered. Lack of education and



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ignorance of machinery on the part of the bulk of the workers has also proved a handicap, partly balanced by their manual dexterity, and by their low wages and long hours of labour, although all these conditions are slowly changing. The directing and managerial classes, and the clerical workers are, however, as skilled and efficient as those of Europe and of the United States, and it is not necessary, as in China, to engage Westerners to fill responsible positions. Japanese enterprises, too, are financed by Japanese capital, and the country is not drained of goods in payment of interest abroad, as for example are Canada and Argentina.

The manufacture of **silk** yarn and silk piece goods still holds the first place, as it did before the industrial revolution in the 'seventies, steam filatures and power looms having replaced the old hand workmanship. The industry is carried on in all the great centres of population, but Yokohama is the principal market and centre of export trade. There is a Government Sericultural Institute, and exports are inspected to ensure a high standard of quality.

The output of **cotton** yarn and piece goods has increased far more rapidly than that of silk, since in both the home and foreign markets there is a far greater demand for the cheaper fabric. Since the home supply of raw cotton is negligible, the thousand million lbs. consumed must be imported. India supplies about half the quantity, the United States a quarter, China less than a tenth, the remainder being made up from the East Indies, Further India, Chosen, and similar sources. In the last-named country the Japanese are very carefully fostering the cotton-growing industry, which shows a great advance. There is potential cotton land besides in the Caroline Is. for which Japan now holds a mandate. Osaka is the centre of the cotton manufacture, but it is also carried on at Kobe, Nagoya, and other large cities. A feature of recent development is the increase in spindles for the medium and fine yarns. The expected reduction in hours of labour for females and young persons will be met by an increase in spindles up to 50 per cent. of the present total of 3·3 millions.

The *iron* and *steel* industry, though hampered by the shortage of home iron supplies, has forged ahead, so that whereas in 1913 the imported steel was double the home production, by 1917 the two were nearly equal, and that in spite of a 50 per cent. increase in consumption, which reaches over a million short tons. There are now half a dozen great iron and steel works, the most important (at Yawata) being Government-owned. *Aluminium* and *zinc* works, dealing with imported ore, are firmly established.

The *shipbuilding* industry is carried on on a large scale in the southern seaports, notably at Kobe and Nagasaki. The programme for 1919 was for 700,000 tons, of which a third was destined for the United States in return for material supplied; that of 1920 was for 103 vessels of half a million gross tons.

The *paper* industry of Japan is very important, since there is a large consumption of both Japanese and European types of paper. The former is made from the local paper mulberry, and is used for partitions, screens, umbrellas, lanterns, toys, and so forth. European paper, used for newspapers and books, is made from the pulp supplied by the coniferous forests of Karafuto, where there are large electrically-driven mills, for water-power is abundant here as throughout the Empire.

Another well-established industry dependent on the abundance of soft

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wood is the manufacture of *matches*, for which there is also a plentiful local supply of *sulphur*, common in volcanic areas. Matches have long been an article of export.

The *toy* industry is also an old one, the waste material from the wood and paper industries being utilised. Latterly metal toys in imitation of those formerly supplied by Germany have been made, and there has been a great increase in the output of *fancy goods* of metal, wood, porcelain, lacquer, leather and paper. Of the miscellaneous manufactures that sprang into prominence since 1914, that of *window-glass* is an example. The home market is now supplied, and a surplus worth £ $\frac{1}{4}$  million remains for export. Minor glass products include bottles, scientific and fancy glass, watch-glasses and beads, and the export total for 1920 was £2 $\frac{1}{4}$  millions.

The adoption of Western style clothing by the army and navy and the business community has led to the manufacture of *woollen cloth*, and *boots* and *shoes*, for which raw material is imported. *Sugar* is refined, the raw material coming from Taiwan and the Indies; *beer* is brewed from local barley, to be marketed in India and Java; *starch* is manufactured from the potatoes grown in the cooler north. *Soap* and *rubber* are further examples of industries that have grown since 1914, it being easy for Japan to divert part of the copra and rubber supplies from the Pacific and Malay that formerly travelled West.

In addition to home manufactures there are Japanese enterprises abroad, including iron and steel works in Manchuria and Chosen, cotton mills in China, sugar and jute factories in Taiwan, while the Manchurian Railway Company is Japanese, and much Japanese capital is invested in China.

**Trade Relations.**—Japan is well equipped with railways, nearly four-fifths of the total of 7,690 miles being Government-owned. £160 millions have been voted for railway extensions and improvements, including the introduction of standard gauge. Where there is heavy traffic, e.g. round Tokio, electrification is in progress. From Tokio lines run northward to the extremity of Honshiu, north-westwards to Niigata, a treaty port on the Japan Sea, and westward through Yokohama, Nagoya, Osaka, Kobe, and Hiroshima to Shimonoseki. Here a ferry crosses the mile-wide strait to Kiushiu, the railway running thence on to the port of Nagasaki. A tunnel under this strait has been discussed. Yokohama is the entrepôt for foreign export trade, being well placed in relation to San Francisco, Seattle and Vancouver. Kobe, on the Inland Sea, has the greatest share of the import trade, with Osaka as a competitor now that it has a deep-water harbour. Shimonoseki is the ferry port for Fusan, the terminus of the Chosen railway through which China and Siberia are reached. Nagasaki, almost opposite Shanghai, is the port for Central and Southern China and Formosa. The chief northern seaport is Hakodate, the terminus of the Hokkaido railway, and the outlet for the coal and sulphur, timber, beans and potatoes which are sent south from that island. The Japanese merchant fleet has, according to Lloyd's, a gross tonnage of 3 millions, an increase of over 40 per cent. on 1914, and there are besides over 20,000 small sailing vessels and junks, which ply chiefly in home and neighbouring waters and among the Pacific Islands. There are now eight large steamship companies which maintain regular sailings to the principal ports of the world.

The biggest customer for Japanese produce is the *United States*, which



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purchases goods worth £70-£80 millions, principally raw silk, besides tea (£5 millions to £6 millions). In the return trade from the States, worth about £10 million less, the heaviest items are iron and steel manufactures (£25 million in 1918), raw cotton (£14 millions), and machinery (£5 millions). Petroleum, construction materials, chemicals and dyes, motor-cars and paper each add considerably to the total.

*China* is the second largest purchaser of Japanese goods, nearly half the total trade of that country being with Japan. Here the heaviest single class is cottons, the figures for 1917 being : Japanese yarn £6 million, crepe £1½ million, shirtings £1½ million, sheetings £2 million, drills and jeans each £1 million. Japanese matches and refined sugar also go to China, and in addition many miscellaneous manufactured goods, including stationery, enamel and metal ware, apparel and the like. The return trade from China is only half as great, since the staples of that country, tea and silk, are also exported by Japan. Raw cotton, soy-beans, bean-cake and oil are the chief items. It is however, to China that Japan must look for mineral supplies, represented now by small shipments of tin, antimony, coal and iron, which are capable of enormous increase with the growth of internal transport facilities.

*India* supplies Japan with a far greater quantity of goods than does China, although she is a smaller purchaser. Four-fifths of a total of £40 millions is represented by raw cotton, items of less importance being jute, rice and tanned hides. As exporters to India the Japanese are second only to the United Kingdom, having made remarkable headway during the last few years in respect of cotton piece goods, and thus seriously menacing the position of the British manufacturer. Silks and matches are also important, and the long list of minor shipments includes iron and steel goods, hardware, cotton hosiery, beer, apparel, glassware, stationery, toys, chemicals and so forth. Three Japanese steamship lines have regular sailings from Calcutta and Colombo, and there are now large Japanese merchant houses in India which handle goods, such as jute, which are not consigned to Japanese purchasers. In 1918-19 the Japanese imports into India were £22 millions as against £51 millions from the United Kingdom, but in 1919-20 Japan lost some ground, while British firms filled a rush demand, including delayed orders, and thus doubled their total sales.

The balance of trade between Japan and *Britain* altered in direction as the result of War conditions, Japan sending more goods westwards than she received in return. This is partly due to the fact that transport difficulties during the War, and actual shortage of goods subsequently forced Japan to make more purchases in the United States. British cottons, too, formerly largely purchased, are superseded by home-made goods, and manures (valued at over £1 million in 1912) can be obtained from the Pacific Islands or direct from Chile. Japan's staples, too, are not in very great demand in Britain since European silk and silk goods are close at hand, and Indian teas hold the market. Japan sends copper to Britain, besides a certain quantity of silk, peas and beans, straw plait, and fancy cottons. In 1917 crude zinc from the Japanese smelting works, valued at over £1 million, was also shipped. In 1919 iron and steel goods and machinery to the value of £5 millions formed the chief items from Britain. In 1920 Japanese purchases of British goods were four times as great as in 1918, and this heavy speculative buying precipitated the world-slump.

*Siberia*, approached by the Manchurian Railway or Vladivostok, naturally



## Japan.

affords Japan an easily accessible market for cottons and silks, sugar, beer and miscellaneous manufactures. This trade is of recent and very rapid growth, although the political situation renders the return trade so far slight. Eventually the food-stuffs and raw materials of Western Siberia, and the timber and minerals of Eastern Siberia, will be available for the industrial communities of Japan.

The trade of Japan with the *British Dominions*, notably Australia, Canada and Newfoundland, has undergone a marked increase. Australia spends over £5 millions on Japanese goods, New Zealand £1¼ million, Japan taking in return raw wool while it was available, and also ores. Canadian purchases amount to about £3 million, including besides silks and cottons, beans, rice and tea, and small quantities of glass, china and metal manufactures. In return Canada sends manufactures of iron and steel and wood.

The trade of Japan in and about the *China Seas* and the *Pacific Islands* has reached considerable dimensions, for throughout the region there is a demand for cottons and for cheap manufactures of domestic wares. In return Japan buys raw sugar, rubber, copra, rice, raw cotton and petroleum, to name but a few of the more important items.

The *Japanese Colonies* trade almost exclusively with Japan, supplying food-stuffs and raw materials in return for manufactured goods. Sugar, tea, jute, rice and coal come from Taiwan; rice, beans, raw cotton, iron, hides and live cattle from Chosen; while large supplies of soy-beans, bean-oil and bean-cake come through the leased territory of Kwantung in the south of Manchuria.

Direct trade with *South America* was the result of war conditions, that with Chile and the Argentine reaching the highest figure. There was some falling off in 1919, but the position established is being consolidated by commercial treaties and direct sailings of Japanese vessels to South American ports.

**General Information.**—A gold standard was adopted in 1897, and the unit of value is the *yen* (not coined) representing 0·75 grammes of pure gold ( $= 2/0\frac{1}{2}$ ). The *sen* is  $\frac{1}{100}$  part of a yen. Gold, silver and bronze coins, besides notes, are issued. The notes are amply covered by gold, and financial stability is assured. There are over 2,000 banks, the principal houses being the Nippon Ginko (Bank of Japan) and the Yokohama Specie Bank, which have branches throughout the East and offices in London. Business is also done by branches of the Hong-Kong and Shanghai Banking Corporation, the Chartered Bank of India, Australia and China, the International Banking Corporation of New York, and a branch of the German Asiatic Bank. The metric system of weights and measures was adopted in 1921.

There is absolute religious freedom in Japan. Elementary education is compulsory, and higher education is given at 7,000 technical schools and in the five Imperial Universities, where there are 10,000 students.

London mails reach Japan via the Trans-Siberian Railway in sixteen days, and by P. & O. or Nippon Yusen Kaisha in forty-five days. The boats of the Messageries Maritimes from Marseilles take thirty-eight days.

There is a Japanese Consul-General in London, and British Consul-Generals at Tokio, Yokohama and Kobe, Consuls at Nagasaki and Shimomoseki, and a Vice-Consul at Hakodate. There is a British Commercial Counsellor at Yokohama.

## JAPANESE LEASED TERRITORY (KWANTUNG)

*The leased territory* of Kwantung was taken over by Japan from Russia in 1905. It forms the southern part of the peninsula of Liaotung, and lies across the mouth of the Gulf of Chili, opposite to Tientsin and Peking. The lease was extended by agreement with China for 94 years as from 1915. The territory covers 538 square miles, and has a population of over half a million, of whom nine-tenths are Chinese, and the remainder Japanese. Dairen, the commercial port, has an ice-free harbour, thoroughly well-equipped, and a population of nearly 50,000. It is a terminus of the Manchurian railway system, through which it is in direct communication with Siberia and China. The trade amounted to £45 millions in 1919, imports and exports being approximately equal. The chief goods shipped are **soya-bean** cake and oil, and *ground-nuts*, this trade being mainly in Japanese hands. There is also an export of *grain* and *wild silk*, all the commodities coming from Manchuria. The imports include Japanese cottons, and United States iron and steel goods, machinery, boots and shoes.<sup>1</sup>

Port Arthur is the military and naval station. Money, weights and measures are as in China, but Japanese currency also circulates. The Yokohama Specie Bank has a branch at Dairen, where there is also a British Consul.

## JAPANESE PACIFIC ISLANDS

**Area and Population.**—The Caroline Islands, Palau Group, Marianne and Marshall Islands, former German possessions for which Japan holds a mandate, cover an area of about 1,000 square miles, and have a population of about 70,000 natives, 2,500 Japanese, and a few Europeans. The former administrative centres were Yap (Western Carolines), Ponapé (Eastern Carolines), and Jaluit (Marshall Islands). Nauru, one of the Marshall group, lying just south of the Equator, has been assigned to New Zealand. Guam, the largest of the Marianne group, was ceded to the United States in 1898. Yap is an important cable station, and its retention by Japan was opposed by the United States, but foreign cable rights have been safeguarded.

**Position and General Information.**—These islands are scattered over an area of many thousands of square miles, between latitude 20° N. and the Equator, and between longitude 135° E. and 175° E. The majority are of coral formation, and many are mere reefs, which are uninhabited. In the north of the Marianne group there are some volcanic islands, also uninhabited. The chief resources of the region as a whole are **copra**, the leading export, and **phosphates**, which are mined chiefly in

<sup>1</sup> For Map see China.

## Japanese Sakhalin (Karafuto).

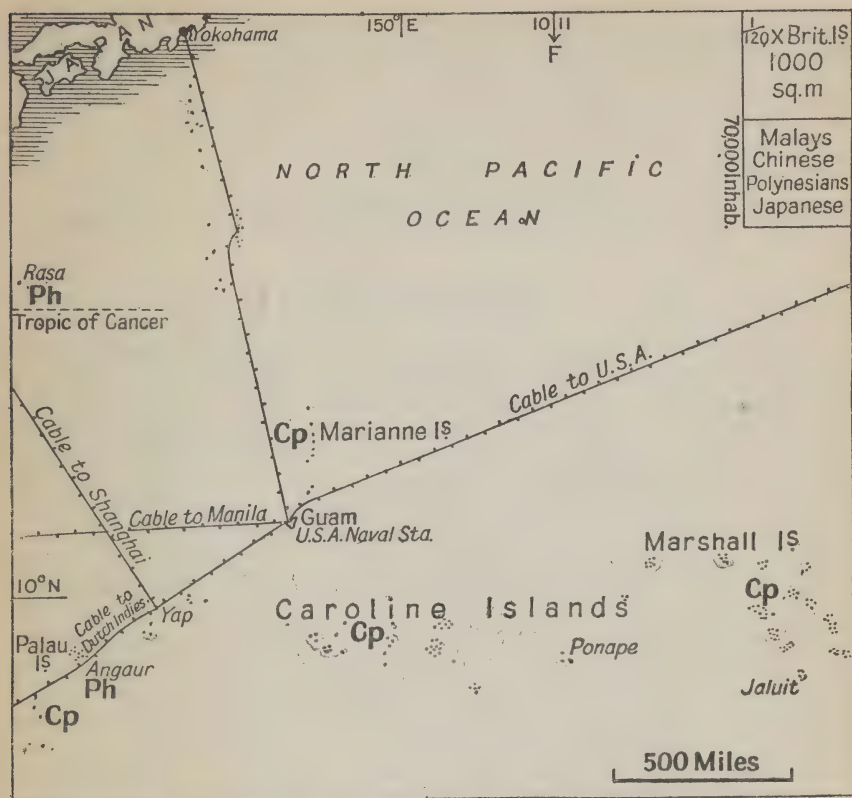


FIG. 89.—THE JAPANESE PACIFIC ISLANDS.

Angaur Island of the Palau (Pelew) group, whence 30,000 tons of high-grade phosphatic rock are exported annually. The Japanese are said to be taking steps to improve and extend the native agriculture, and it is possible that sea-island cotton and tropical fruits may be grown for the Japanese market. Sisal hemp might also be cultivated. Many of the natives are Malays and Chinese, besides Japanese immigrants, and there should therefore be less difficulty with regard to labour than in Polynesia generally.

## JAPANESE SAKHALIN (KARAFUTO)

*Karafuto* is that part of Sakhalin south of latitude  $50^{\circ}$  N. It has an area of 13,000 square miles, and a population of 106,000, largely Japanese settlers. It resembles Newfoundland in position and general character, having large forests of larch and fir from which paper pulp is manufactured, besides valuable herring fisheries. Fish is canned and fish fertiliser manu-



**Jugo-Slavia.**

factured. In the forest clearings mixed farming has been begun, with assistance from the Japanese Government. There is an important *coal*-mine in the north-west, yielding over 100,000 tons annually.

**JAVA**

See **Dutch East Indies**, p. 189.

**JUGO-SLAVIA**

**Area and Population.**—The Kingdom of the Serbs, Croats and Slovenes, known as Jugo-Slavia, is ruled over by a monarch who was formerly King of Serbia. The territory comprises the former Kingdoms of Serbia and Montenegro; the Austrian Provinces of Bosnia, Herzegovina and Dalmatia; the Hungarian Provinces of Croatia and Slavonia, with part of the Hungarian Banat; the greater part of the Austrian Province of Carniola, with the fringes of Styria and Carinthia. The boundaries are roughly coincident with the extension of the Jugo-Slavs, or peoples of South Slavonic race, but there are Jugo-Slav minorities in adjacent parts of Hungary, Greece and Italy, while groups of Magyars, Bulgars and Albanians are to be found in the new State. The Serbian tongue is everywhere understood, although the Slovenes speak a dialect of their own. There is, however, a lack of uniformity in the written language, and in the religion of different sections of the population. Briefly, in the west, the Roman alphabet (i.e. as in England) is used, and Roman Catholicism prevails, while in the east, the Russian (based on Greek) alphabet is used, and the people are of the Greek Orthodox faith. The area of Jugo-Slavia is about 100,000 square miles, and the population 14 millions. The general outlook of the country is towards the central Danubian Plain, hence Belgrad, at the Save-Danube junction, with 120,000 inhabitants, is a fairly well-placed capital city, while Zagreb (Agram) farther west, where the Save debouches from the mountains, forms a secondary traffic centre with 80,000 inhabitants. Other towns, such as Sarajevo, Uskub (Skoplie), Monastir (Bitolia) are small and of local importance only. A new Jugo-Slav University has been established at Ljubljana (Laibach), near the Western frontier, but at present the standard of education is not high and a majority of the peasantry are illiterate. The character of the population determines a relatively small external trade—£6 per head, or about £80 millions, seems a reasonable estimate.

**Position and General Physical Conditions.**—Jugo-Slavia occupies the north-west section of the Balkan Peninsula, overlooking the Adriatic Sea westward and bordered by Bulgaria to the east. On the south lie Albania and Greece: on the north, Austria, Hungary and Rumania. Save that it does not extend so far southward, the country lies roughly in the same latitudes as Italy, Belgrad being about as far south as Genoa. As in Italy the southern part of the country is mountainous, while the chief plain lies in the north, but in the case of Jugo-Slavia, this plain is only a portion of the great Hungarian or middle-Danubian Plain, and no natural or easily defensible frontier line

## Jugo-Slavia.

separates Jugo-Slavia from her northern neighbours. The drainage of the plain is carried eastward by the Drave-Danube system, and by the Save, which runs along the edge of the mountain zone from which it receives a large number of tributaries. The valleys of these tributaries—notably the Bosna and Morava—are the main areas of cultivation, and the main lines of communication in the mountain belt, and the fact that the majority open northwards gives a Central European, and not a Mediterranean, orientation to Jugo-Slav affairs. There is, however, a narrow belt—very mountainous—which overlooks the Adriatic and drains to that sea, and where



FIG. 90.—JUGO-SLAVIA.

the valleys have the typically hot dry summers of southern Italy. Here the ridges are but scantily wooded, as limestone formations, which tend to be dry, predominate. Elsewhere, however, the mountains are well watered and well forested, and their timber is a valuable asset. The northern plain and associated valleys have the hot summer and somewhat severe winter of Central Europe generally, with moderate summer rains. A region calling for special mention is the Upper Vardar basin, which opens out to Greek Macedonia. At the mouth of the Vardar valley stands Salonica, a port coveted by the Serbs, since it is the natural gateway from the Balkan region to the Near East, the Morava and Vardar valleys together cutting a great north to south trough (serving as a route-way), across the peninsula.

**Human and Economic Conditions.**—The Jugo-Slav State is essentially agricultural, nearly nine-tenths of the people being peasant-



**Jugo-Slavia.**

farmers or landowners. Agriculture is, however, in a very backward state, farm implements being usually of a primitive type, while very little attention is given to manures and fertilisers. The only exception to this state of affairs is on the plains of Croatia and Slavonia (formerly part of Hungary) where, side by side with the present holdings, there were large estates which were scientifically managed. The workers on these estates gained an insight into modern methods, and the small owners, too, given credit facilities, are sufficiently intelligent and well-educated to improve their land where possible. Thus, broadly speaking, the new State, supposing an enlightened governmental and educational policy to be pursued, is likely to produce food-stuffs in much greater quantity than was formerly the case.

**Maize** is the leading cereal, and is grown both on the plains and in the valleys; it serves as the principal cereal food of the peasantry, and is also fed to stock, especially pigs. There should be a surplus for export. **Wheat** is second in importance, and grows on the northern plain and in the more fertile valleys, but in the mountain districts, and especially in Bosnia and Herzegovina, there is insufficient to meet the local demand. There is, therefore, considerable internal movement of wheat, but, again, an exportable surplus may be looked for. *Sugar-beet* is cultivated to a certain extent in the Morava valley (old Serbia) and on the northern Plain, but not in sufficient quantity to meet the demand. **Tobacco** is a valuable crop in Herzegovina, and also in Serbian Macedonia (the Vardar basin), and the crop should supply the home demand, and in addition be an article of foreign commerce. The broken nature of much of the country, affording a large acreage of sunny sheltered slopes, renders *fruit* culture of great importance. **Plums** are the staple of the orchards, and dried plums (prunes or Bosnian plums) are a leading article of commerce. Plum marmalade is largely manufactured, and plum brandy is very generally consumed. The **vine** is also important, especially in the Save and Drave valleys and on the hills between these rivers, and also in the hot dry valleys of Herzegovina and Dalmatia. In the two latter regions, where the valleys open to the Adriatic and have the characteristic hot dry summer of the Mediterranean littoral, a great variety of **fruits**, including figs, olives, pomegranates, apricots, tomatoes, come to perfection, and these will find a ready market in the interior of the State.

Both on the plains, where the pastures are rich, and in the mountain region, where there are extensive natural pastures, **cattle-rearing** is important, and in most districts attention is given to the breeding of **pigs**: under normal conditions there should therefore be a large export of *live-stock*, besides meat and hides. *Sheep* and *goats* are reared by the peasants for their milk, from which cheese is made for local use, but the sheep are of a coarse-woolled variety. Unscientific goat-rearing should be discouraged owing to the damage done by these animals to young trees. The more remote mountain regions, and the poorly-grassed belt draining to the Mediterranean, have the greatest number of sheep and goats per head of population, and in these areas there is an annual movement of the flocks to the higher pastures in summer. *Poultry* are very numerous as in all peasant-farming areas, and a large trade in eggs and birds should be developed, provided packing and transport are well organised. A recent estimate of live-stock gives the following figures: Cattle, 5½ millions; pigs, 5 millions; sheep, 10 millions; goats, 2½ millions.



## Jugo-Slavia.

As has been stated, forests cover a very large area in Jugo-Slavia, and **timber** promises to be a valuable article of commerce, especially as the Mediterranean lands farther south are very poor in this commodity. Up to an altitude of about 2,400 feet, deciduous trees predominate, the beech being most abundant in Bosnia, and the oak together with the beech being important in Serbia and Slovenia; on the higher mountains the forests are coniferous, and spruce is important. The Bosnian forests have been exploited by Italian and other foreign capitalists, and much timber goes by rail to Sebenico for Italy, while much formerly went inland to Hungary. The Serbian forests have been neglected, but an enlightened policy of scientific development and conservation is being adopted for the country as a whole.

The *mineral* wealth of the Balkan peninsula generally is always declared to be very great, but lack of labour (owing to the attachment of the peasantry to the land), of capital, and of transport facilities has prevented any large-scale development. There are **lignite** beds on the northern borders of the uplands, both in Bosnia and Serbia, the former yielding some million tons annually and the latter about  $\frac{1}{2}$  million. Since wood and charcoal are largely used for domestic heating the *per capita* consumption of coal is not great, but for the railways and for industrial development an import is necessary. The mountainous nature of much of the country, and the heavy rainfall, especially on the north-western mountains, ensures an abundance of *water-power*, chiefly used at present on a small scale for domestic lighting. **Iron ore** is mined to the south of Laibach and in Bosnia, and lately also in the copper-mining region of North-east Serbia. **Copper** is obtained from the Bor and other mines of Serbia, to the value of £ $\frac{1}{2}$  million, and other minerals awaiting exploitation are antimony, manganese, chromium, silver and lead.

Along the Adriatic (including the Dalmatian) coast, with its fringe of islands, and mountainous hinterland, the male inhabitants are traditionally fishermen and sailors, and the *tunny* and *sardine* fisheries are of some importance.

The *manufactures* of Jugo-Slavia have, as a rule, only local importance, and are centred at the larger towns, including Belgrad, Agram, Sarajevo, and Esseg (on the lower Drave). Here there are engineering shops, and small textile mills: Agram has glassworks, and at Sarajevo carpets are woven. There are, however, very important *iron and steel* works at Vares and Zenica to the north of Sarajevo in Bosnia. These have been brought practically to a standstill for lack of coke, but the largest concern has now passed into German hands and will obtain coal from that country. The output during the early years of the War from this plant alone amounted to 637,000 tons of pig-iron, and 300,000 tons of rolling-mill products. There are also large *chemical* works in Bosnia, based on the local salt and lignite, including a calcium-carbide plant using hydro-electrical power at Jajce: these did an export trade under normal conditions. *Furniture* is manufactured, including bentwood at Varazdin (Croatia). Apart from these, the industrial enterprises are mainly concerned with the working up of farm produce, and include breweries, tanneries, flour and saw-mills, preserve factories and sugar refineries.

**Trade Relations.**—The fact that Jugo-Slavia is separated either by difficult country or by foreign territory from the Mediterranean

**Jugo-Slavia.**

Sea suggests that commercial relations will be most readily developed with the Central European States. Agricultural machinery, railway plant, stationary engines and hardware are in demand, and can be supplied by Germany or by the engineering firms of Vienna and Budapest: timber, grain, tobacco, plums, animal products and minerals are available in return. The railways to the Adriatic Sea necessarily follow zigzag routes across the mountain barrier, and this is narrowest behind Fiume, which is thus the natural outlet for the productive northern plains if they are to trade overseas. Fiume has been nationalized owing to Italy's determination to dominate the Adriatic, but it is through this port that trade with Great Britain, e.g. in cotton and woollen textiles, machinery, and coal, in return for timber, raw material and food-stuffs, will be established. The fine harbour is capable of accommodating the largest vessels. The pre-war trade with Britain was very small. Italy, however, expects to take an important part in the trade of the new State, now her neighbour, since she, too, has manufactured goods to dispose of (cottons, silks, chemicals, automobiles) and has an insufficient supply of home-grown grain and timber. It is significant that an Italian bank is opening at Agram and Belgrad, the centres to which the British manufacturer should direct his attention. Serbia has an outlet to the Ægean through the Greek city, Salonica, which will serve Serbian Macedonia, and stands at about the same distance from Belgrad as does Fiume. The railway passes over difficult country, but it forms part of the most direct route from Central Europe to the Near and Far East, and hence is likely to grow in importance. The minor ports of the Adriatic, including Spalato, Ragusa and Castelnovo are too remote from the centres of dense population to have more than local importance.

**General Information.**—The currency of Jugo-Slavia is on a gold basis, the unit being the *dinar*, equivalent to a franc (i.e. normally 25½ dinars equal £1 sterling). The National Bank has power to issue notes. The metric system of weights and measures is in general use. The chief foreign banking establishments are the British Trade Corporation and the Franco-Serbian Bank, with London offices.

Mails take 2½ days to reach Belgrad overland. There are British Consuls at Zagreb and Sarajevo, Vice-Consuls at Belgrad and Skoplie. A Commercial Secretary is attached to the British Legation.

**KARAFUTO**

See **Japanese Sakhalin**, p. 313.

**KASHMIR**

See **India**, p. 280.

**KENYA COLONY**

See **British East Africa**, p. 77.

*Latvia.*

## **KHIVA**

See **Turkestan**, p. 460.

## **KLONDIKE**

See **Canada**, p. 123.

## **KOREA**

See **Chosen**, p. 159.

## **KUBAN REPUBLIC**

See **Caucasia**, p. 135.

## **KURDISTAN**

See **Asia Minor**, p. 30.

## **KWANTUNG**

See **Japanese Leased Territory**, p. 312.

## **LABRADOR**

See **Newfoundland**, p. 346.

## **LATVIA**

**Area and Population.**—The Republic of Latvia has an area of 25,000 square miles (five-sixths the size of Scotland), and a population of  $2\frac{1}{2}$  millions, of whom over half a million live in Riga, formerly a leading Russian seaport and industrial centre. The high proportion of town dwellers is partly due to the extreme poverty of the peasants, and partly to the fact that the majority are landless, so that they are driven to seek factory work. The landowners and ruling classes have hitherto generally been Germans, while the masses are Letts, a people akin to the Lithuanians, but distinct from the Teutonic and Slavonic races. The Letts adopted the religion of their masters and are Protestants. They are estimated at three-fourths of the total population, which includes, besides, large numbers of Germans, Russians and Jews, the last named mainly in the towns. No



**Latvia.**

estimate can be given of the future external trade, but it should eventually be larger than the small population warrants, for Riga should be an important entrepôt for Soviet Russia, once the economic reconstruction of the latter is effected. Riga is also the capital of the new Republic, the only other considerable town being Libau, with 100,000 inhabitants. Emigration to the United States and to other parts of Europe prevents any great increase of population. In 1920 the external trade was valued at over 3 milliards of Latvian roubles, the imports being nearly double the exports. Two-thirds of the exports went to Great Britain, which supplied only one-fifth of the imports.<sup>1</sup>

**Position and General Physical Conditions.**—Latvia lies on the eastern margin of the Baltic Sea, between latitudes 56° N. and 58° N., i.e. roughly it lies opposite to Dundee. The summers are somewhat cool, and the winters cold, although not excessively severe; the rainfall and snowfall are moderate. The country is level, or but slightly undulating, and is covered with soils of glacial origin, which include, besides some fertile loams, considerable areas of dry and almost pure sand, and areas of water-logged clay, unsuitable for cultivation. On much of the sandy soil coniferous forests occur, while there are marshes, peat-bogs, and many lakelets on the clay. Forests are extensive, and consist chiefly of conifers (softwoods) with some admixture of elm, birch and aspen. They are a leading economic asset of the country.

The chief river is the Dwina, which rises in the Central Heights of Soviet Russia and flows through the country from east to west, falling into the Gulf of Riga. Smaller streams are the Livonian Aa, the Courland Aa and the Windau. All these rivers are, of course, frozen during the winter months, but in the spring they are very valuable for floating timber, which is felled during the winter.

**Human and Economic Conditions.**—It is due probably to the enterprise and example of the German land-owning class that methods of agriculture are more advanced in Latvia than in neighbouring Lithuania. The farms are well-equipped, artificial manures are used, and a suitable rotation of crops is practised. The sand-dunes, which gradually creep inland, have been consolidated by planting, but there is still room for the extension of the cultivated area by drainage of the wetter lands. **Rye** and **oats** are the principal cereals, since the climate is unsuited to wheat, and a considerable quantity of **barley** is also grown. A large acreage is under **potatoes**, which are used for the distillation of alcohol and the manufacture of starch, while of even greater commercial importance is the **flax** crop, which comes chiefly from the east of the country, where it forms part of the great flax region of Russia generally. The light, sandy soils found in many districts are suitable for market gardening, and there is a considerable output of *vegetables* and small *fruits*, which are mainly sent to the large towns.

Of the animal industries **cattle**-rearing is the most important, since, as the proximity of the Baltic Sea keeps the air humid, grasses and forage crops do well. *Butter* and *meat* are both important articles of commerce, as are *eggs* and poultry (especially geese). **Sheep** are less numerous than horned cattle, but they include a minority of animals of fine-woolled breeds, and a little wool is sent out of the country. There were, before the War, about half

<sup>1</sup> For Map see Estonia.

## Latvia.

a million **pigs**, and bacon and hams were prepared for export at Libau. In no part of Russia are the conditions for *dairying* and allied industries so favourable as along the Baltic margin, and there should be an expansion of output when economic order is restored.

The **timber** resources of the country have been mentioned: the forests are on the whole scientifically managed, but here, as in nearly every part of the world, there is room for improvement, in order that the forests may be an improving, instead of a dwindling, asset. Much of the inferior wood is cut for **wood-pulp**, and the pulp, paper and cellulose industries are important, especially at Riga. Water-power development schemes are on foot.

The city and seaport of Riga, the leading shipping centre of the Eastern Baltic, is naturally the chief centre of manufactures, since coal must be imported, and there are excellent facilities for obtaining raw materials from Central Russia and from abroad. These industries include flour-milling, paper-making, general engineering, rubber manufacture (on a very considerable scale), preparation of vegetable-oils (partly from linseed), dressing and spinning of flax and hemp, manufacture of cotton and woollen textiles, of tobacco, chemicals, matches, furniture, veneer, boots and shoes, varnishes, and other articles of minor importance. Libau, the second port of Latvia, is also the second centre of industry, its activities including flour-milling, bacon-curing, engineering, tanning, veneering and the preparation of linseed-oil.

All these industries were brought almost to a standstill by the War, but with the restoration of Russia, they should not only revive, but expand.

**Trade Relations.**—No details of the direction of trade can be given, but, broadly speaking, the ports of Latvia send the typical "Baltic Produce"—timber and wood-products, flax, hemp, linseed, grain, animal products—westwards to industrial Europe, Britain and the United States, in return for coal, certain raw materials, fish, manures, and manufactured goods. Much of this trade is carried on British bottoms and handled by British merchants, and the part played by the United Kingdom in supplying the needs—e.g. as regards textiles and metal goods—of the Republic and its hinterland should be a leading one. The position of Riga, at the head of the Gulf of that name, is of advantage as giving ready access to the surrounding land areas, but the Gulf is ice-blocked in winter, and a channel for steamers must be kept open by ice-breakers. Even this is not always possible, for several large islands partly close the mouth of the Gulf, and in certain states of the wind pack-ice may accumulate and block the fair-way. Windau, lying on the open shore of the Baltic, and Libau, similarly situated, but considerably farther south, are free from these disadvantages, and hence do an especially important winter trade, but the accommodation at Windau is not very extensive, although it has large cold-storage facilities.

**General Information.**—A common unit of gold standard currency, the Baltic *lat*, will probably be adopted by Latvia and the neighbouring Republics, and the metric system of weights and measures will be used. At present the only legal tender is Latvian (paper) roubles, and Russian weights, including the *pood* of 36 lb., are used. Latvia has entered into fiscal union with Esthonia. There is a British Consul at Riga, and a Vice-Consul at Libau.

## LEEWARD ISLANDS.

See **British West Indies**, p. 116.

## LIBERIA

**Area and Population.**—The Republic of Liberia has an area of about 40,000 square miles ( $1\frac{1}{2}$  times the area of Scotland), and a population of from  $1\frac{1}{2}$  to 2 millions. Of these, however, only a small fraction take any part in the political life or economic development of the country. They include the 12,000 American negroes, representing the original colonists who were freed slaves, and about 50,000 indigenous negroes, who by contact with the American Liberians have become more or less civilised and Christianised. These two groups speak English. There are also a few British negroes and Europeans. The total trade does not usually exceed £ $\frac{1}{2}$  million, although in 1919, owing to the accumulation of produce which could not be shipped in previous years, the figure was higher. The capital and principal port of entry is Monrovia, with about 6,000 inhabitants.

**Position and General Conditions.**—Liberia lies on the coast of West Africa, between British Sierra Leone and French Ivory Coast. It extends inland to the high rim of the West African plateau, which forms the Upper Niger watershed. It lies between 4° and 8° N. of the Equator, and has an exceedingly hot, humid climate, with a brief dry season in the winter months. The vegetation is mainly tropical forest, and forest produce is the chief economic asset of the country, cultivation being neglected except for local needs. Wild **coffee** is the staple product, while *palm oil* and kernels, *piassava* fibre (from the raphia palm), *kola nuts*, *chillies*, *beeswax*, wild *rubber* are all obtained in small quantities from the more accessible parts of the forests. The climate and soil conditions are suitable for rice and cacao, but the quantities grown are small. Rice is imported, together with building materials, Manchester goods, ready-made clothing, gin, tobacco, dried fish and hardware.

British money, weights and measures are used, but accounts are kept in dollars and cents. There is a branch of the Bank of British West Africa at Monrovia. This port has direct cable connection with New York and Europe, and two wireless stations. There is a Consul-General at Monrovia.

## LITHUANIA

**Area and Population.**—The boundaries of the Republic of Lithuania are not finally fixed, and certain areas are disputed with Poland. It is approximately the size of Ireland, and has about the same population— $4\frac{1}{2}$  millions. The Lithuanians are a branch of the Indo-European family, distinct from the Slavs (Russians and Poles) on the one hand, and from the Teutons (Germans) on the other, and having a language, literature and culture of their own. It is probable that they form little more than two-thirds



## *Lithuania.*

the total population of the new Republic, which includes within its boundaries important minorities of Russians, Jews (especially in the towns) and Poles. No estimate can be given of the external trade, but the peasantry are very poor and live in very primitive fashion, so that it will probably be well under £15 millions sterling. It is significant, however, that of the small 1920 trade, 43 per cent. represented exports, i.e. the country is not obtaining credit abroad in the wholesale fashion of many of the new States. The capital and chief town is Vilna, with a population of over 200,000, while Kovno, at the junction of the Niemen and Viliya rivers, has 90,000 inhabitants. Other towns are mere market centres. A majority of the population are Roman Catholics. Temporary emigration of the young male peasantry to East Prussia and Poland, and permanent emigration to the United States, normally exist on a considerable scale, owing to the poverty of the masses.<sup>1</sup>

**Position and General Physical Conditions.**—Lithuania lies on the eastern margin of the Baltic Sea, and marches with East Prussia, Poland, Russia, and the new Republic of Latvia. Situated as it is in the latitudes of the English Lake District and Southern Scotland, it has a short, cool summer, and, since the Baltic exercises but little modifying influence, a winter with average temperatures well below freezing-point. The rainfall is moderate, and falls chiefly in summer. The internationalised territory of Memel and the German territory of East Prussia lie between the Republic and the actual Baltic shore. The country is level, save for the Lithuanian Heights in the south-east, and is covered with soils of glacial origin. Some of these are fertile, but they also include sands which are too dry, and clays which are too water-logged, for cultivation, and there are considerable areas of lake, marsh and heath. Much of the original forest which clothed Northern Europe still remains, the trees being mainly coniferous, but with some admixture of the more valuable oak. Birch and aspen, too, are common, and timber is among the most valuable of the country's resources. The country is drained to the Baltic Sea by the Niemen and Viliya, which are navigable except when closed by ice in winter.

**Human and Economic Conditions.**—The state of the peasantry has already been noticed, and, as would be expected, methods of agriculture are primitive and the standard of living is low. Owing to the unfavourable climate the staple cereal is the hardy **rye** (1 million tons in 1913), which forms the main breadstuff of the people, while **oats** are second in importance, and comparatively little barley and wheat are grown. **Potatoes** are grown in considerable quantities (1½ million tons in 1913), and are largely used in the preparation of industrial alcohol and starch. **Flax** is of importance in the east, and when the home demand (for homespun chiefly) is met, there should be some 10,000 tons for export, besides a quantity of **linseed**. *Forests* cover about one-fourth the total surface, and await proper handling and development, when there should be a valuable **timber** trade. **Cattle** are fairly numerous, and their milk is made into butter, which is an article of export, and together with *poultry* (mainly geese), eggs, vegetables and fruit, provides the farmer with the small money income which suffices for his needs. Sheep are kept on a small scale to supply the peasants with meat and sheep-skin clothing, and **pigs** are even more numerous than

<sup>1</sup> For Map see Esthonia.

## Luxemburg.

cattle. Industries are limited to brewing, distilling, grain-milling and tanning.

**Trade Relations.**—Lithuania has timber and food-stuffs, hides, flax and linseed to send to the industrial and commercial centres of North-western Europe and to Great Britain in return for manufactured goods of the simpler and cheaper types, e.g. coarse textiles, tools and domestic wares, and for sugar and wheat-flour for the more well-to-do classes, the two latter commodities coming normally from central and south Russia. Figures so far available show a preponderance of trade with Germany. The chief gateway into the country is the neutralised German port of Memel, which is, however, closed by ice in winter. Communication can be maintained through Libau in neighbouring Latvia, which is always ice-free.

**General Information.**—A Lithuanian currency has not yet been issued. The metric system of weights and measures will be adopted. Lithuanian paper marks, issued by a German bank, are in circulation, and have the same value as German marks. There is a British Consul at Kovno and a Vice-Consul at Memel.

## LORRAINE

See **France**, p. 216.

## LUXEMBURG

**Area and Population.**—The Grand Duchy of Luxemburg has an area of nearly 1,000 square miles and a population of rather over  $\frac{1}{2}$  million. The capital city, Luxemburg, has 20,000 inhabitants. Luxemburg was formerly a member of the German Customs Union, and separate trade figures are not available. A recent referendum showed a preponderance of votes in favour of economic union with France, but in July, 1921, an agreement was concluded with Belgium, and the Customs frontier between the two countries is suppressed.

**Position and General Conditions.**—Luxemburg is a hilly country on the south-eastern margin of the Ardennes, and is drained by tributaries of the Moselle, which river forms its south-eastern boundary. It marches with Belgium, Germany and France, and in the south is of the same formation as the Lorraine region, which is exceedingly rich in iron. Nearly 40 per cent. of the population is engaged in agriculture, the crops being similar to those of Belgium—cereals, beet, potatoes—while considerable attention is paid to orchards and market-gardening, *fruit* and *vegetables* being exported. The land is generally divided into small holdings of  $2\frac{1}{2}$  to 5 acres. *Vines* grow on the slopes of the Moselle and other steep-sided river valleys.

The great wealth of the country lies in its **iron ore** (*minette*), valuable for its high phosphorus content, which is easily worked, and of which over 7 million tons were produced in 1913. This quantity was reduced to 3 million tons in 1919. The ore is mainly exported to Belgium, but a considerable

## **Madagascar.**

quantity is smelted locally. The need to import coke from the neighbouring Saar coal-field brought the industry almost to a standstill during the War. In 1919 there was a revival, and 20 blast furnaces out of 42 were in operation, besides 7 steel works, and 5 rolling mills. The value of the output was about £18 millions. The *pig iron* and *steel* products are exported to Belgium and France. All classes of manufactured goods, besides colonial wares, are imported. In 1921 German coke was being obtained also from the Ruhr Basin, the cost of carriage to Luxemburg being less than to Lorraine, and the removal of the export tax led to the sales of Luxemburg pig to Germany. German industrial groups have also obtained control of a part of the ore supplies. The language spoken is French, the unit of currency is the *franc*, and the metric system of weights and measures is in use. The International Bank of Luxemburg is the chief banking establishment. There is a British Consul at Luxemburg.

## **MACAO**

**General Information.**—Macao is a Portuguese possession in China, covering 4 square miles, and having a population of 75,000, of whom about 2,400 are Europeans. It is situated at the mouth of the Canton River, opposite Hong-Kong. The trade (nearly £2 millions) is in the hands of Chinese, and is mostly transit, the exports being tea, silk, cotton yarn and other staples of Southern China, and the imports rice, cotton piece goods, petroleum, etc. There is a branch of the National Overseas Bank of Portugal at Macao. The port is well served by European and Japanese steamers and by junks.

## **MACEDONIA**

See **Greece**, p. 256.

## **MADAGASCAR**

**Area and Population.**—Madagascar was declared a French Colony in 1896, and is administered by a Governor-General. It has an area of 228,000 square miles, i.e. is considerably larger than France, with a population of over 3½ millions. Apart from some 15,000 French, and a few thousand other Europeans and Hindus, the whole of this population is of the Malagasy race, i.e. akin to the peoples of South-east Asia, and not to those of the neighbouring continent of Africa. The Hovas are the most important and intelligent group, numbering over a million, of whom a large proportion are Christians and have received some education. The total trade during 1916–17–18 averaged £8 millions or over £2 per capita, the imports exceeding the exports, since much money is being expended upon public works and commercial development. In 1919, owing to high prices and accumulated stocks, this situation was reversed. The capital, Antananarivo, has a population of 63,000, while in the principal ports, Tamatave and Diego Suarez, there are 15,000 and 10,000 respectively. Majunga and Fianarantsoa are other important centres.



## Madagascar.

**General Physical Conditions.**—Madagascar is an island in the Indian Ocean 980 miles long and about 300 miles broad. It stretches from about latitude 12° S. to 25° S.—roughly the latitudes of Southern Rhodesia and the Northern Transvaal. The Mozambique Channel, with a minimum width of 240 miles, separates it from South East Africa. Although lying almost wholly within the tropics, it resembles South Africa in being

mainly of an elevated character (3,000 to 6,000 ft.), and on the highlands the climate is pleasant and healthy as in Rhodesia. Lying in the track of the south-east trade winds, Madagascar receives a heavy rainfall, diminishing from east to west in summer, and from north-east to south-west in winter, when the winds shift somewhat. Hence the eastern and northern coast plains and mountain slopes are very wet and are clothed with tropical forests, while on the highlands there are grasslands similar to those of South Africa, and on the western plains and on the dry south-west region there are lighter woodlands and thorn bush.

**Human and Economic Conditions.**—The population is largely found on the highlands, where Antananarivo stands, connected by rail with the port of Tamatave. Here the abundance of natural pasture makes **cattle-rearing** the leading industry, there

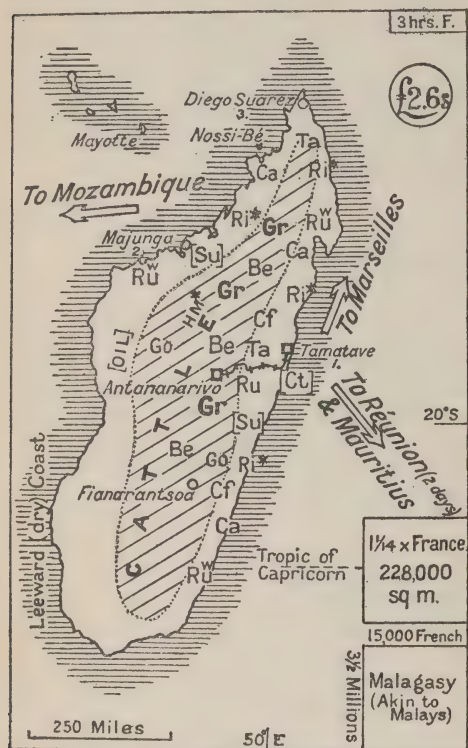


FIG. 91.—MADAGASCAR.

being over 7 million head of horned cattle in the country. Hence there is a large surplus of *hides*, and a meat-packing industry is established on a small scale in the leading towns and ports (18,000 tons of meat products were exported in 1917).

About 3 million acres are under cultivation, 12 per cent. of this total being worked by Europeans. The slopes of the uplands are well-suited to *coffee*, while *rubber*, *sugar*, *cacao* and other tropical plantation products do well on the coastal belt. Much **rice** is grown, and with *manioc* and *butter beans* makes up an important total of food-stuffs exported.

Of forest products, wild *rubber*, *tanning barks*, and *raphia* palm fibre, as being easily collected and handled, are all (especially the last named) exports of considerable value, while very important timber resources await development.

The mineral resources of the country are not fully known, but **gold** dust

## Madeira.

is collected, and recently Madagascar has taken a leading position in supplying the world with **graphite**, thus causing a serious setback to the graphite mining industry of Ceylon. Both these minerals are widely distributed on the high plateau.

**Trade Relations.**—Owing to the existence of good shipping facilities the bulk of the trade of Madagascar is through Marseilles, where the tropical food-stuffs and raw materials naturally find a ready market. Cotton goods and drapery for the native market make up three-fourths of the imports, of which Great Britain supplies a small proportion in return for graphite, beans and rubber. The neighbouring islands of the Indian Ocean, e.g. the Mascarenes, which are engaged in sugar production, also offer a near-by market for food-stuffs, such as rice, meat and lard. Petty trade is largely in the hands of Indian merchants and retailers, and native vessels bring Indian bazaar goods and food-stuffs from Bombay to Diego Suarez. Good roads have been constructed between the principal centres, over which communication is maintained by motor. The railways are being extended.

**General Information.**—The coinage, weights and measures are as in France, and the Comptoir National d'Escompte de Paris has agencies in the chief towns. The French language is compulsory in all schools. There is cable communication with Mozambique, Mauritius and Aden, and a good local telegraph system. There is a British Consul at Antananarivo, Vice-Consuls at Tamatave and Majunga, and a Consular Agent at Diego Suarez.

## MADEIRA

**Area and Population.**—Madeira is treated as an integral part of Portugal, sending representatives to the legislature at Lisbon. The area of the island is 314 square miles, and the population (of Portuguese extraction) is about 180,000 or nearly 600 to the square mile. In the chief town and seaport, Funchal, there are 25,000 inhabitants. Women are considerably in excess of men, since the latter emigrate in considerable numbers to Brazil and the United States. Lying as it does on the direct route from Europe to South America, West Africa and South Africa, Madeira is an important cable centre and calling place for ships.

### Position and General Conditions.

—Madeira lies about 500 miles to the south-west of Lisbon, in latitude



FIG. 92.—MADEIRA.

**Malaya (Straits Settlements and Malay States).**

33° N., and 17° W. The island is hilly and well watered, and clothed with a rich sub-tropical vegetation. The climate is hot in summer, but pleasantly warm and sunny in winter, giving the island its importance as a tourist and health resort. The land is divided up into small holdings, which are intensively cultivated. The hill-sides are terraced, and the water from the mountain streams and rivulets is led over the crops and orchards, the cultivators purchasing the use of the water for so many hours. The *vine* is the most important crop, and *wine* is a leading export. Many *fruits* are grown, including *pine-apples* and *bananas* for export. Early vegetables, including *potatoes*, are also sent to Portugal. The *cereal* crops are insufficient for local needs, and are supplemented by imports. *Sugar*, once the leading staple, is now of minor importance. Labour, and especially female labour, is very cheap, and in consequence handicrafts are important, especially *embroidery* and *wickerwork* (chairs, tables, baskets), which furnish an export trade. Articles of luxury are imported for sale to visitors, besides wheat and flour, coal, timber, drapery and hardware, tobacco, beverages and colonial wares.

The language spoken in Madeira is Portuguese, and currency, weights and measures are as in Portugal. The Bank of British West Africa and the National Overseas Bank of Portugal do business in the island. There is a British Consular representative at Funchal.

**MALAY STATES**

See **Malaya**, below.

**MALAYA (STRAITS SETTLEMENTS, FEDERATED AND UNFEDERATED MALAY STATES)**

**Area and Population.**—The Straits Settlements, Federated and Unfederated Malay States, comprise the southern portion of the Malay Peninsula, and form a single economic unit. The Straits Settlements are a Crown Colony administered by a Governor, and include a series of islands and small strips of territory on the west coast of Malay, commanding the Malacca Straits. The total area is 1,600 square miles, and the population 820,000, of whom 370,000 are in Singapore, 300,000 in Penang (including Province Wellesley and the Dindings), 150,000 at Malacca. Over half the number are Chinese, and over 10 per cent. Indians, the remainder, apart from a few thousand Europeans and Americans, being Malays.

The Federated Malay States are under British Protection, and there is a Resident at each court. They include Perak, Selangor, Negri Sembilan, and Pahang, with a total area of 27,500 square miles, and a population of 1 million. Of this number, only 41 per cent. are Malays, 42 per cent. are Chinese, 16 per cent. Indians, and between three and four thousand are Europeans and Americans.

The Unfederated States are under British suzerainty, and have at each



## Malaya (Straits Settlements and Malay States).

Court a British Adviser. They include Johore, Kedah, Perlis, Kelantan and Trengganu, covering in all an area of 23,500 square miles, and having a population of 820,000, of whom over 150,000 are Chinese.

Thus the whole of Malaya covers 52,600 square miles (rather larger than England), and has a population of over 2½ millions, among whom there are more than a million industrious Chinese, and some hundreds of thousands of Indian coolies, the labour supply thus being assured. Good schools and an efficient medical service are maintained by Government throughout the country.

The total foreign trade passing through the Straits Settlements (excluding transshipments) averaged in 1917-1920 to about £195 millions, and this represents the bulk of the trade of Malaya, working out at £78 per head of population.

Singapore also handles an enormous bulk of goods which merely change bottoms, since it stands almost on the Equator, at a point whence routes naturally diverge to all the major and minor ports of the Indian and Pacific Oceans. Being at the extreme southern point of Asia, it must be touched by all east-west trunk traffic.

**Position and Climate.**—The Malay Peninsula stretches along a north-west to south-east axis between parallels 6° N. and the Equator. Looking westwards to the Malacca Strait (leading to the Indian Ocean), and eastwards to the China Seas, it is swept alternately by the south-west and north-east monsoons, so that it has abundance of rainfall and a uniformly high temperature (above 80° F.) all the year round. The plentiful water supply allows of hydraulic sluicing at the mines.

**General Physical Conditions.**—Both from the east and west coasts the ground-level rises steadily to a central mass of mountains, about 6,000 ft. high, which runs from north-west to south-east. The rivers are swift, and only suitable for navigation near the mouths. Except where cleared for agriculture, Malaya is clothed with a typical dense equatorial forest, rich in palms, wild bananas, bamboos and creepers.

**Human and Economic Conditions.**—The most important product of Malaya during the twentieth century has been plantation **rubber**. The similarity of the climate to that of the Amazon basin allows the hevea (Para rubber) tree to be grown with success, and the output has risen from 250 tons in 1906 to over 100,000 tons in 1918. The bulk of the rubber comes from the Federated States of Perak and Selangor, but there



FIG. 93.—MALAYA.

## *Malaya (Straits Settlements and Malay States).*

is also a large output from Johore (behind Singapore), and there are many plantations elsewhere. There are, besides, large areas of unoccupied land suitable for rubber planting should the state of the market justify an extension of the industry. In 1920-21 rubber fell below its pre-war price, for the market became glutted, and as throughout the Indies and elsewhere fresh plantations are coming into being each year, the restoration of prosperity depends upon a rapid increase of consumption.

Although overshadowed by the enormous production of rubber, the **coco-nut** and **tapioca** plantations are also of great value and are steadily extending. *Rice* is also grown, both by the Malays and on the plantations, but the crop is insufficient for the needs of the large immigrant population. Government irrigation works have been constructed to increase this crop, and in 1919 laws were brought into force compelling mine and estate owners to plant staple food-stuffs in the proportion of one acre to every ten labourers employed.

Another industry of long standing is the cultivation of *pepper*, and Malaya is also an important source of *areca* nuts (betel), which find a large market in the East, of *gambier* used in tanning, and of *sago*. Tropical fruits, including *pineapples*, are extensively grown, and are canned at Singapore.

Throughout its length, the Malay Peninsula, together with the adjacent islands of the same rock formation, is rich in **tin**, and Malaya has long been the chief source of the world's supply (total 120,000 tons) of this metal. The output is in the neighbourhood of 40,000 tons annually, and is second only in value to rubber. The Chinese are found as labourers in the mines, as well as on the plantations, and nearly half the tin comes from mines owned and managed by Chinese. Up-to-date machinery is increasingly employed, and there are smelting works under European management at Penang and Singapore. Although the general fall in price levels led to stagnation in 1921, yet since the demand is essentially steady or increasing, and world supplies are somewhat short, the industry has little to fear. *Wolfram* mining also makes progress, this ore occurring widely through the peninsula. A *coal* mine is now being worked in Selangor, near the west coast.

**Trade Relations.**—Malaya has a well-developed State railway system, which is rapidly being extended. The main line runs from south to north through the western (most productive) provinces, and links up with the Siamese railways in the north. A branch line runs from the north frontier of Johore through the centre of the peninsula, and this will be continued through Kelantan to the east coast. There are also over three thousand miles of good metalled roads, besides native roads and paths.

Previous to the War, the bulk of the tin, rubber, pepper and copra of Malaya came to the United Kingdom, a proportion being re-exported thence to Western and Central Europe and to America, and a proportion going directly to various European countries. The shipping difficulties of the war years turned the current of trade eastwards, and the rubber was auctioned at Singapore and sent to the United States, which in 1919 took Malay goods (including tin) to the value of £35 millions, as compared to £5 millions in 1914. The return trade from the States was of much less value, rising from £800,000 to £2 millions only.

Japan also developed a considerable import trade in rubber, and this country has increased threefold her exports to the Straits, these reaching £3 millions in 1919 and £3½ millions in 1920.



## **Malay (Straits Settlements and Malay States).**

Owing to the fact that about half the population of Malaya is engaged on the production of commodities solely for export, a very large quantity of food-stuffs is necessarily imported, although the Government action already noted should partly remedy this. Rice and grain form the heaviest item (£11½ millions in 1918), coming from Burma, Siam and Cochin China. Sugar (£4 millions) comes from Java and Japan; fish (£1 million) from Cochin China and Japan. The Chinese are also very heavy smokers, and the import of tobacco, cigars and cigarettes in 1918 was worth £2½ millions. The United States supplied nearly one-third of the demand, the rest being made up by the Philippines, Dutch Indies, India and the United Kingdom.

The weaving of silk sarangs worn by the Malays is largely a native industry, but cotton piece goods are in demand for the Chinese and Indians, and the import is valued at £5 millions. Of this 75 per cent. comes from the United Kingdom, as against over 80 per cent. in former years; the remainder is from India, Japan and China. The United States has been able to fill the demand for motor-cars and accessories (£300,000 in 1917), and has captured a considerable proportion of the trade in iron and steel goods and machinery. The import of this class of goods fell off during the War, and hence there is an arrears of demand to be filled. In addition to this, the rapid progress of railway construction and of facilities for communication generally (e.g. telephones) has led to a large demand for rolling stock, locomotives, construction material, electrical apparatus and so forth.

**General Information.**—There are thirteen banks having establishments in the Straits Settlements and Malay, including the Hong-Kong and Shanghai Banking Corporation, the Mercantile Bank of India, Ltd., and the Yokohama Specie Bank. The standard coin is the dollar, par value 2s. 4d., which with the British sovereign is legal tender to any amount. Government currency notes are also in circulation. The measure of length is the English yard, and of area the acre. The native weights are still used commercially, including the *picul*, equivalent to 133½ lb. Mails reach Singapore in 4 weeks. There is an Imperial Trade Commissioner at Singapore.

**Christmas Island** is a dependency of the Straits Settlements. Its area is about 45 square miles, and the population is 2,000. The total trade in 1917 was £164,000, or £82 a head, of which £137,500 represented the value of the export of **phosphates**, the sole commercial product of the island, which is mainly shipped to Japan and Australia. In return food-stuffs for the coolie labourers and mining officials, besides machinery, tools, trucks, etc., for the light railways and wharves, are imported. The island lies in the Indian Ocean to the south of Java, between 10° and 11° S. of the Equator.

**Cocos or Keeling Islands.**—This small group of coral islands is a dependency of the Straits Settlements, lying about 1,200 miles south-west of Singapore, in the Indian Ocean. The population is about 800, dependent upon the coco-nut plantations and upon fishing. There is a wireless station on the islands, and a cable station.

**Labuan Island.**—This island is a dependency of Singapore. It lies about 6 miles off the coast of British Borneo on the Bay of Brunei. The population numbers about 7,000 persons, who are engaged in trade with Borneo, in agriculture or in fishing. There is a *coal-field* on the island.



## MALTA

**Area, Population and General Conditions.**—Malta is a British Colony administered by a Governor, who is also in command of the Garrison. It includes the two islands of Malta and Gozo, and has an area of 117 square miles and a population of about 250,000. The chief town and seaport is Valletta, with a population of 25,000. Malta lies about halfway between Gibraltar and Port Said, and 50 miles south of Sicily,

in latitude  $36^{\circ}$  N. It commands the great trade-route between Western Europe, India and the East. The total trade is valued at about £5 millions, of which over £4 millions represents imports. This is due to the fact that supplies for the garrison and for civil servants are imported, while many Maltese are engaged about the harbours and docks, or as merchant sailors, since Malta is an important calling and bunkering station for ships.

Such services form "invisible exports." Bunkering coal is imported and exported to the value of about half a million sterling, while wheat and flour, cattle food, petroleum and textiles are other heavy items on the import list. There is a considerable trade in luxury articles.

About 43,000 acres of land are under cultivation, **wheat** being the chief crop, although the harvest is quite inadequate to local needs. Potatoes, onions, tomatoes and other *vegetables*, besides citrous and other *fruits* are grown for export. Between 300 and 400 bales of **cotton** are also grown, and used in local cottage industries. The chief domestic animals are *sheep* and *goats*. There is a small manufacture of lace and cigarettes. The islands are over populated, and there is considerable emigration to the continent, the United States, and North Africa, the destination of the emigrants varying according to the state of the labour market.

Maltese and Italian are the languages in common use. The currency consists of British coins and British Treasury notes. Maltese coins have been demonetized. The chief banking establishment is the Anglo-Egyptian Bank. The unit of weight is the *rotoli* of  $1\frac{3}{4}$  lbs. Mails reach Malta in three days, it is also an important cable station.

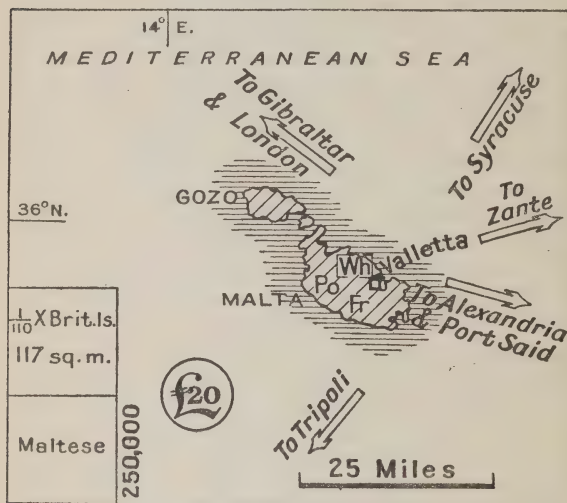


FIG. 94.—MALTA.

*Martinique.***MANCHURIA**See **China**, p. 148.**MANITOBA**See **Canada**, p. 123.**MARIANNE ISLANDS**See **Japanese Pacific Islands**, p. 312.**MARSHALL ISLANDS**See **Japanese Pacific Islands**, p. 312.**MARTINIQUE**

**Area and Population.**—The French Colony of Martinique is administered by a Governor. The total area is 385 square miles, and the population nearly 200,000 (over 400 per square mile). The foreign trade has reached over £6 millions annually, the exports being greatly in excess. This is largely due to the high price of rum, the *per capita* trade being £30, as against £10 in 1912. The chief port and commercial centre is Fort de France, with 26,000 inhabitants. The city of St. Pierre was destroyed by the eruption of Mont Pélée in 1902.<sup>1</sup>

**General Conditions.**—Martinique is one of the lesser Antilles, lying in latitude  $14\frac{1}{2}^{\circ}$  N., between the British West Indian Colonies Dominica and St. Lucia. Like the neighbouring islands it has a fertile volcanic soil and an excellent climate, which, though tropical, is healthy. The chief commercial product is **sugar**, the distillation of rum worth over £2 millions in 1919 being the principal industry. Next in importance is **cacao**, of which the export is valued at nearly £ $\frac{1}{2}$  million. The secondary money crops are coffee, tobacco and cotton, while bananas, manioc, maize and so forth are grown for local consumption.

The exports go mainly to France, while the United States takes the leading part in the import trade.

The unit of currency is the *franc*, and the chief bank, the Banque de la Martinique, issues loans for agricultural purposes. The Royal Bank of Canada has a branch in the island. Steamship connections are good, and there is indirect cable connection with America and France. There is a British Consul at Fort de France.

**MAURETANIA**See **French West Africa**, p. 231.<sup>1</sup> For Map see Leeward Islands.

**Area and Population.**—Mauritius, formerly a French possession,

The capital and chief seaport is Port Louis, with 40,000 inhabitants.

### General and Physical Conditions.—Mauri-

The climate resembles that of Fiji, being uniformly, although rarely excessively hot, with a regular and sufficient rainfall from the S.E. trade

**Human and Economic Conditions.**—Mauritius is

dependent for prosperity upon a single staple, **sugar**, for which the climate, soil and coloured labour supply, make it admirably suited. The average production is about  $\frac{1}{4}$  million tons (greater than that of the whole of the British West Indies), and sugar represents between 80 per cent. and 90 per cent. of the total value of the exports. Hence the prosperity of Mauritius varies directly as the price of sugar, and the war years have led to an accumulation of capital in the hands of planters and merchants which is being invested in the neighbouring territories of Réunion, Madagascar, Natal,



## **Mayotte and the Comoro Islands.**

Zululand, and so forth, while many public and private improvements are being effected in the island itself, e.g. irrigation works, and the extension of hydro-electrical enterprises. Over 40 per cent. of the sugar is grown by Indians on their own small holdings.

One aspect of the danger of "one-crop" prosperity was shown during 1918-19, when the lack of shipping led to a grave shortage of rice and meat among the working classes. As a result more *maize* has been planted, but this is not very acceptable to the Indians.

Ranking next to sugar, although on a comparatively small scale, is the cultivation and manufacture of **sisal hemp** (from a plant related to the agave), which is capable of development. Other successful crops are **tea**, which is, however, insufficient for the local demand, **citrus fruits** (limes, oranges, lemons), which are the staple of Rodrigues, and **ground-nuts**, to all of which it is hoped that more attention will be directed.

**Coco-nuts** are the staple of the Chagos Archipelago, and coco-nut oil is exported.

**Trade Relations.**—The sugar of Mauritius goes normally to India, but has during the last few years (1915-20) been bought up by the Imperial Sugar Commission. The return trade is mainly in the shape of rice, cottons and tobacco. Great Britain supplies cottons, machinery and metal goods, but America and France are appearing as competitors, as the demand for sugar-milling plant, electrical goods, rolling-stock and other metal manufactures is very great. There is also a good market for motor-cars, bicycles, pianos and similar luxury articles. Efforts are being made to strengthen the commercial relations between Mauritius and Durban, the nearest large British seaport. Durban can supply coal, maize, dairy produce, meat and certain manufactures, but makes no demand for sugar, which is locally produced. Port Louis harbour, where goods at present must be lightered, is to be greatly improved; it has a certain amount of entrepôt trade with Réunion and Madagascar.

**General Information.**—The metric system of weights and measures is employed, and the monetary unit is the Indian rupee (normally 1s. 4d.). The Mauritius Commercial Bank and the Mercantile Bank of India have offices in Port Louis. The French language and French law have been preserved under British rule, and the French population is Roman Catholic. Port Louis is four days' sail from Durban, and fourteen from Colombo. London mails take about four weeks to reach this port. There is cable communication with Durban, Australia and Zanzibar, and the military wireless station may be used for commercial purposes. There is an Imperial Trade Correspondent at Port Louis.

## **MAYOTTE AND THE COMORO ISLANDS**

**Area and Population.**—The Comoro Islands (Mayotte, Grande Comore, Anjouan and Moheli) form a French Colony attached to Madagascar. The area of the group is 790 square miles, and the population about 98,000.

**Position and General Conditions.**—The Comoro Islands lie between 11° S. and 13° S. at the northern entry of the Mozambique Channel, between Madagascar and East Africa. The climate resembles that of the smaller Pacific islands, and the natural vegetation is tropical forest, which contains valuable timber trees, of which there is some export.

**Mexico.**

The islands are an important source of supply of **vanilla** and **perfumes** (patchouli, ylang-ylang, citronella), and **cacao** is also successfully grown. The nearest British seaport is Zanzibar (500 miles), through which much of the trade passes, and the nearest British Consular agent is stationed at Majunga, the western port of Madagascar. Coins, weights and measures are as in France.

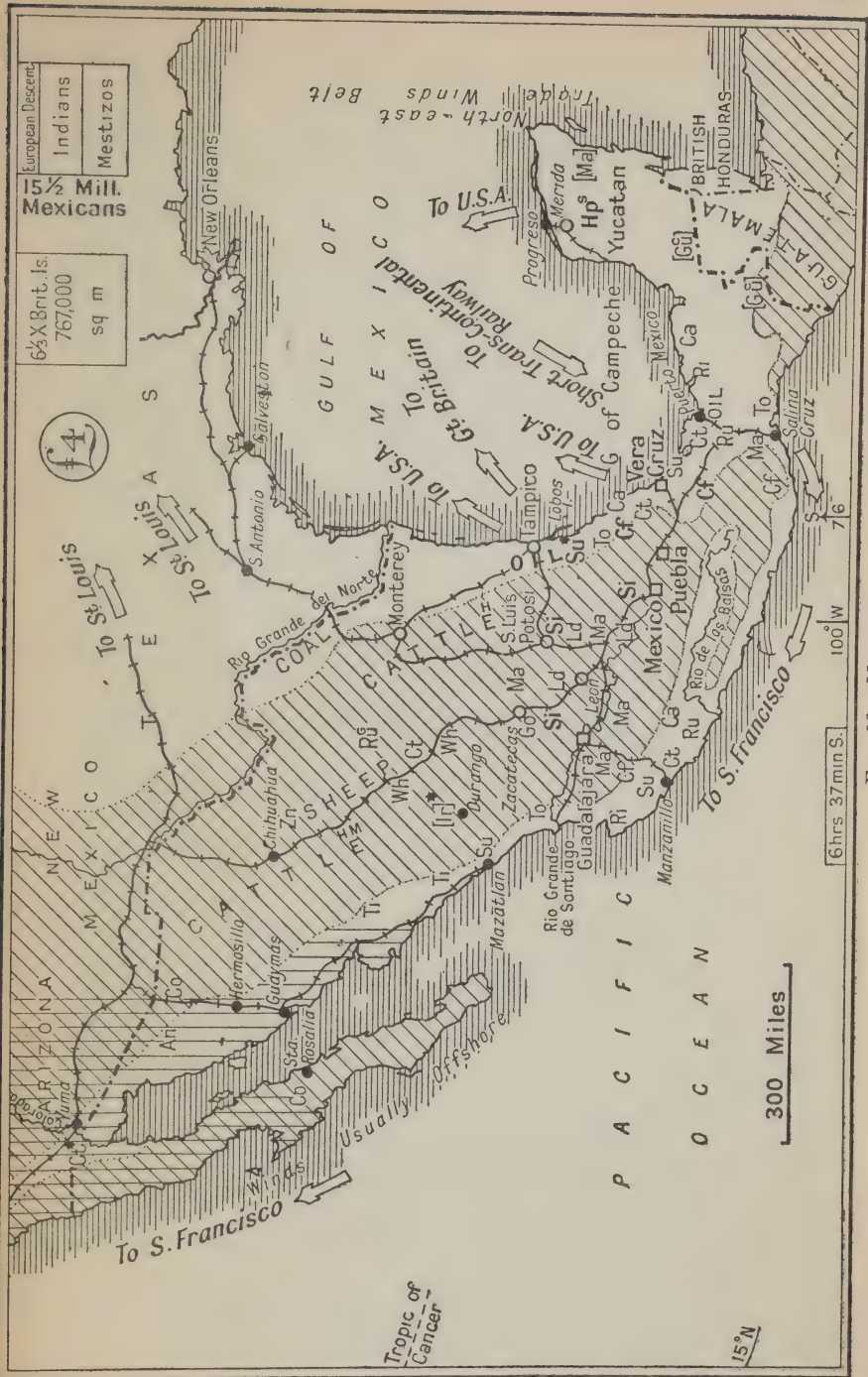
**MESOPOTAMIA**

See **Irak**, p. 290.

**MEXICO**

**Area and Population.**—The Republic of Mexico has been engaged in civil war since 1913, so that its economic development has been seriously hampered, and trade figures are not always available or reliable. The area of the country is 767,000 square miles (rather more than six times the area of the United Kingdom), and the population is  $15\frac{1}{2}$  millions, or under 20 persons to the square mile. Of these about 19 per cent. are of European descent (chiefly Spanish) 43 per cent. are of mixed blood, and 38 per cent. pure Indians, of whom a large number live in primitive fashion, following their old tribal customs. The Federal Capital, Mexico City, has over 1 million inhabitants, while Guadalajara, in the fertile Rio Grande de Santiago, has over 100,000, and Puebla, near the capital, almost as many. S. Luis Potosi, Monterey, Merida (Yucatan), Leon, and Vera Cruz (the chief seaport) have populations of 50,000 or more, while some thirteen other towns have over 20,000 people. The total trade for 1918 was £53 millions, of which nearly 70 per cent. represented exports. This is, however, under £4 a head, an exceedingly low figure for so rich a country. The 1919 total increased to £69 millions, and the 1920 figure when published will be much higher. A great deal of foreign capital is invested in Mexico, and American, British, Spanish and French enterprises account for much of the export trade. The foreign population numbers over 116,000, of whom about one-fourth are Spanish, and nearly one-fourth from the United States. Orientals number about 20,000, principally Chinese.

**Position and General Physical Conditions.**—Mexico lies to the south of the United States, and is open to the Gulf of Mexico on the one hand and to the Pacific Ocean on the other. It stretches from latitude  $14^{\circ}$  N. to latitude  $33^{\circ}$  N., about half the land lying in the temperate and half in the torrid zone: thus it corresponds in latitude to Central and North-Western India. The climate is, however, modified by the fact that the greater part of the country is an elevated plateau, sloping from 10,000 ft. in the hotter south to 3,000 ft. in the north, and averaging over 6,000 ft. Thus a series of climate belts, tropical, semi-tropical and temperate, is found one above the other. The plateau is bounded by mountain chains prolonging the American Rockies, of which the Sierra Madre in the west is the most well marked. In about the latitude of Mexico City the bordering chains alter their direction and run from west to east, thus meeting the eastern sierras. This region is volcanic, a famous peak being Popocatepetl. In the Isthmus of Tehuantepec, which is 130 miles from north to south, the highlands sink down so that there is a gap, very useful for transport, not more than 1,000 ft. high. Further east the Guatemala Highlands begin,





**Mexico.**

but in Yucatan, the peninsular extension of Mexico northwards, the level is generally low.

North-western Mexico, like similarly situated parts of West Africa and India, suffers from a deficient rainfall, but the south and east have abundant summer rains. On the plateau, however, the bordering ranges shut off the rain-bearing winds, and the rainfall is increasingly scanty from south to north. In the dry regions the summer days are exceedingly hot, although the nights are cool.

The variety of climate conditions is reflected in the variety of vegetation. On the well-watered tropical coastal lowlands of the south, there are ever-green tropical forests, with valuable hardwoods. On the dry, yet hot, west coast, and in Yucatan (where the soil is limestone), there is chaparral or thornwood, the thorny algarroba being characteristic. On the upper mountain slopes there are temperate forests of oak, walnut, beech and similar trees, followed at still greater elevations by pine forests, like those of the Rockies. On the plateau there is a semi-desert vegetation of coarse grasses and small shrubs, such as sage brush, with varieties of succulent drought-resisting plants such as agaves, euphorbias, yuccas and cactus. This is modified by richer pastures and woods where water is supplied by rivers from the sierras. The Rio Grande del Norte flows south-eastwards from the Rockies, and forms the boundary between Mexico and the States. The Colorado empties itself into the Gulf of California, passing through a true desert region. The Rio Grande de Santiago, and the Rio de las Balsas, flowing from east to west, cut two deep and fertile valleys in the region of lofty mountains which forms the southern margin of the plateau,

**Human and Economic Conditions.**—Mexico is capable of producing almost every variety of vegetable product, *cacao*, *sugar*, *rubber*, *cotton* and *rice* being staples of the tropical lowlands, with *coffee* on the mountain slopes, besides such tropical fruits as bananas and pineapples. The State of Vera Cruz is the most thoroughly developed coastal region. On the plateau, where irrigation is largely employed, **maize** is the staple crop, especially in the south, while **cotton** is produced on a considerable scale near the Nasas River; **wheat** becomes more important towards the north, and the *agave*, yielding the national drink, *pulque*, is a characteristic plant of the whole semi-arid plateau. **Tobacco** is widely grown, and **beans** and **peas** are also very generally cultivated. Chick-peas (*garbanzo*) are a leading export of western Mexico, but as a rule, except for coffee and some sugar, all the crops mentioned are cultivated for local consumption, very primitive and inadequate methods being in vogue. Since the establishment by the United States of irrigation works on the Colorado River, a part of Lower California, close to the border, has also been brought under cultivation by this means. **Cotton** is here grown for export to the States, largely with Chinese and Japanese coolie labour.

In the peninsula of Yucatan, the limestone soil and light rainfall are suited to the cultivation of **sisal** (henequen), and Mexico is the chief source of supply of sisal hemp, which is the most valuable vegetable substance exported (158,000 tons in 1918).

Large semi-desert areas in Durango and Coahuila produce the guayule shrub from which *rubber* is prepared, and between 1910-15 a considerable industry sprang up, but the low price of rubber now ruling puts guayule out of the market.

## Mexico.

The northern plateau region is in character similar to the high western plains and mountain basins of the United States, and is consequently a valuable ranching country, raising millions of **cattle** and **sheep**. Many of the ranch owners are Americans, and the live stock finds a market in the States. The peasants as a rule keep *goats*.

Forest products are neglected, owing to defective means of communication, pack mules being the principal means of transport in many districts. *Dyewoods* and *fustic* are, however, shipped from the western forests.

Surpassing in importance both the animal and vegetable resources of Mexico (in so far as these are at present developed) is the *mineral* wealth of the Republic. The leading position was long held by **silver**, which is found very widely on the plateau region, especially in the south. The output is about 64 million oz.—worth £16 millions at 5s. an oz., the 1920 price. **Gold** is also found in fair quantity with the silver (e.g. at El Oro), the output being worth 3–4 millions sterling. There are, besides, **lead**, **zinc** and **copper** mines of importance, the last named both in Lower California, where a French Company, at Sta. Rosalia, works valuable mines, and in the Sierra Madre, in the State of Sonora. Between 70,000 and 80,000 metric tons of copper (6 per cent. of the world's supply) are annually produced, and about 100,000 metric tons of lead. The famous **iron** mountain of Durango has been purchased by the United States Steel Corporation. The production of metals is fairly steady (apart from interruptions due to civil war), but in recent years Mexico has leapt to the front rank of **oil**-producing countries, the output being exceeded only in the United States and, normally, in Russia. The wells are very favourably situated near the Gulf of Mexico, behind the ports of Tampico, Port Lobos and Tuxpan, and the equipment as regards pipe-lines, storage tanks and refineries is very complete. Over half a million barrels can be delivered to tidewater daily. A powerful wireless station on Lobos Island communicates with ships at sea. There is a secondary field in the Isthmus of Tehuantepec, behind Pto. Mexico. In 1920 the output reached over 160 million barrels worth over £50 millions. This is nearly one-quarter the output of the United States. American and British capital is developing the oilfields. **Coal** is mined in the north of the plateau, the annual output being nearly a million tons, while the resources are estimated at 100 million tons.

The *manufactures* of Mexico are of local importance only. Cheap cottons are turned out in considerable bulk from about 150 mills (Puebla, Orizaba, Mexico City) for the home market, sugar is refined, cigars and cigarettes are manufactured in great quantities, besides newsprint (from imported pulp), motor-tyres, chocolate, and some structural steel and rails (chiefly at Monterey). There are also large tanneries at Mexico City and Leon. Foreign capital is invested in many of these concerns, and foreigners (French, Germans, Spaniards) have a strong position in retail trade, while Syrians and Levantines are numerous as petty traders. The woollen blankets and cloaks in general use are woven by the Indians on hand-loom.

**Trade Relations.**—The railway system of Mexico extends over about 10,000 miles, and the network is closest in the south of the plateau region, where the densest population is to be found. The trunk lines running northwards link up with those of the States, there being easy gradients all the way, so that rapid through connection is maintained with New Orleans, St. Louis and Chicago. A railway also runs from Arizona down to the west



**Mexico.**

coast, and along the coastal plain to Mazatlan, but the lofty Sierra Madre isolates the western region from the rest of the country, the only direct route between the two coasts being the Tehuantepec Railway, in the south. This railway runs from Puerto Mexico to Salina Cruz, and is in competition with the Panama Canal. Vera Cruz and Tampico, the two chief seaports, are the termini of lines which climb the escarpment to the plateau region. Yucatan has an isolated network focussing on Progreso, whence the sole money crop, sisal, is exported. Vera Cruz is available for vessels drawing up to 28 ft. and Tampico for vessels drawing up to 22 ft. Both have good wharfage, but at Progreso, although there is deep-water anchorage, goods must be lightered. Mazatlan, the chief port on the west coast, is very poorly equipped.

The rail and shipping facilities ensure that the bulk of Mexican trade (over 80 per cent.) is with the United States, that country taking a very large proportion of the oil available for export (45 million barrels in 1919), besides metals, sisal, sugar and coffee. A part of these products are re-exported. British imports from Mexico, according to the Board of Trade returns, amounted in 1919 to £7 millions, more than half being represented by crude and refined oils. The return trade from the United Kingdom was little more than £1½ millions, cottons accounting for about half that total. The bulk of the textiles required, besides hardware, machinery, metal goods, chemicals, vehicles, groceries, dry goods and fancy goods, are supplied by the United States. There is a small direct trade with Germany, France, Spain, Cuba and the leading Central American and South American Republics. British goods could be pushed by well-equipped travellers and agents.

**General Information.**—The unit of currency is the Mexican dollar (weighing .75 grammes of pure gold), which is equal to one-half of the United States dollar, and therefore normally worth 2s. 0½d. Paper money is being gradually withdrawn from circulation, but in 1919 the value of the notes was nearly £12 millions. The metric system is legally in use, but old Spanish weights and measures, e.g. the *libra* (1.014 lb.) are also commonly employed. The British banking establishments are the Bank of Montreal, Royal Bank of Canada, and the Anglo-South American Bank. The great majority of Mexicans are Roman Catholics, but there is no longer a State religion. The language spoken is Spanish. Mails from Liverpool reach Tampico in 19 days. There are British Consuls at Mexico City, Colima, Progreso, Salina Cruz, Tampico and Vera Cruz, besides numerous Vice-Consuls and agents.

**MIQUELON & ST. PIERRE**

See *St. Pierre and Miquelon*, p. 414.

**MOLUCCA ISLANDS**

See *Dutch East Indies*, p. 189.





**Morocco.**

international territory of Tangier and district. The area of Morocco is about 231,500 square miles (about four times the size of England and Wales), and the estimated population is 6 millions, of whom nearly  $5\frac{1}{2}$  millions are in the French Protectorate. The natives include Berbers, Tuaregs and Arabs, besides large numbers of Jews and Negroes. There are about 88,000 Europeans, of whom half are French, one-fifth are Spanish, and about a thousand are British. The largest city is Fez, the northern capital, with over 100,000 people. Of nearly equal size is Marrakesh (Morocco), the southern capital, while the port of Casablanca, the centre from which French influence has developed, is third, with a population of over 89,000, including nearly 40,000 Europeans. Rabat, on the west coast, and Meknes, which are also native capitals, have each nearly 40,000 people, and the Sultan is at present (1921) in residence at Rabat. Tangier has 50,000 and Melilla 42,000 inhabitants.

Large numbers of the natives are nomad tribesmen, under the effective control only of the local Sheikh, and the safety of life and property in the interior is by no means assured. The country is, however, extremely rich in natural resources, and as the rail and roadways extend, larger areas are being thrown open to international commerce. The foreign trade in 1919 reached £28 millions, but of this 68 per cent. was import trade, including material for development works, besides provisions and necessities for the French officials and colonists, and the army of occupation.

**Position, Climate and General Physical Conditions.** — Morocco lies in the north-west of Africa, and has both a Mediterranean and an Atlantic seaboard. Situated between latitudes  $29^{\circ}$  and  $36^{\circ}$ , it has the typical South Mediterranean climate, with exceedingly hot dry summers, and moist warm winters. The rainfall diminishes towards the east and south, and is nowhere superabundant. In the Spanish zone, a high mountain range, El Rif, sweeps westward and then northwards, and is prolonged by the Sierra Nevada of Spain, the narrow Strait of Gibraltar being a mere gap in the chain. The main Atlas ranges run from Algeria through Morocco with a south-westerly trend, and hence in the angle between the two mountain zones are the plains and valleys of the west coast, which lie open to the Atlantic winds and form a fertile region in some respects resembling the rich province of Andalusia in Spain.

The vegetation of Morocco resembles that of Portugal—cork and ever-green oak forests on the mountains and on the hillsides, wild olive and fig, myrtle, laurel and many other varieties of drought-resisting trees and shrubs, with, in addition, date palms and prickly pear.

**Human and Economic Conditions.**—Native cultivation is somewhat primitive, but there is already an available surplus of **grain**, principally barley and wheat, besides **legumes** (beans and chick peas) maize, linseed and almonds. **Fruits**, including citrus and stone fruits, figs and dates, grow in abundance and could be commercially developed, while both climate and soil are suited to the vine, olive and tobacco, which are grown with such success by the native and European agriculturists in neighbouring Algeria. There are tracts of exceedingly rich black soil in the coastal belt. European orchards and vineyards are already established.

Of animal products, *eggs* are at present the most valuable, since they are readily collected, but the country is rich in horned *cattle*, and these are

## Morocco.

exported. There are also large flocks of *sheep* (nearly 7 millions) and *goats* (1½ millions) on the uplands, yielding wool, skins and hides.

The **cork**-oak forests of the littoral are being worked, and there is some fine *cedar* at an elevation of about 4,000 ft. in the Middle Atlas.

The mineral wealth of Morocco is probably very considerable, including phosphates, iron, copper, lead and zinc, which are extensively mined in Algeria and Tunis, where the build of the country is of a similar character. The **phosphates** will be immediately developed, as also the **oil** which has just been discovered. *Iron* ore is exported from the Spanish zone.

**Trade Relations.**—The natural Atlantic and European entry into Morocco is through Tangier, at the western end of the Strait of Gibraltar, while Melilla is the most convenient point of approach from France and the Mediterranean region. The uncertainty as to the political status of Tangier, and Spanish apathy in Melilla have, however, postponed the necessary port improvements, and both roads and railways into the interior are wanting. The French, on the other hand, have constructed public highways and railways, so that Casablanca, on which these converge, is actually the chief gateway of trade, and here extensive harbour improvements have been completed. The Algerian railway has also been continued westward to Fez, where it meets the Casablanca line, and when the sections to Tangier and to Marrakesh are completed all the chief towns will be linked up. Four-fifths of the exports went to France in 1919, and that country supplies about half the imports, but the figures do not reveal the actual country of origin and destination of the goods, since these are redistributed from the ports of France and Southern Spain and from Gibraltar. The commodity in largest demand is sugar, which can be supplied from the refineries of France and the United States; next in importance come cotton goods, of which a considerable proportion are of British origin, the same country also supplying machinery and hardware, which stand high on the list. Tea is valued at over £600,000 and comes indirectly from British India and Shanghai, and other considerable items are soap and candles, wine, spirits and beer, vegetable oils, groceries and provisions, coffee and tobacco.

The market for iron and steel goods, including galvanised sheets, plates, bars, wire, rails, rolling stock, locomotives, is obviously an expanding one, and one in which Great Britain has already a good footing, but rivalry must be looked for from the United States (which has increased her Moroccan trade from mere tens to hundreds of thousands of pounds during the war), from Belgium and to a less extent from Germany. Improved methods of agriculture and European colonisation must create a demand for agricultural implements and machinery, while the improvements effected in the telephone and telegraph services, and the modernisation of the towns opens a market for electrical apparatus and accessories. The good roads, too, mean increased motor traffic.

**General Information.**—There is a State Bank of Morocco. Spanish and French coins are used in the Spanish zone, French coins in the French zone. The Moorish (Hassani) currency was withdrawn in March, 1920. The produce of the country is sold by the *kantar* of 168 lb., imported goods are sold by the *kantar* of 112 lb. Numerous other weights and measures are current, but the official metric system is gaining ground. The Bank of British West Africa and the State Bank of Morocco have



**Nepal.**

branches in Casablanca. There are British Consuls at Casablanca and Fez, Vice-Consuls at Marrakesh, Rabat, Saffi, Mazagan and Mogador in the French zone, and at Laraiche and Tetuan in the Spanish zone. A Commercial Secretary is attached to the British Legation.

**MOZAMBIQUE**

See **Portuguese East Africa**, p. 395.

**NATAL**

See **British South Africa**, p. 105.

**NAURU OR PLEASANT ISLAND**

**Position and General Information.**—Nauru, formerly one of the German Marshall Islands, has been assigned to New Zealand as mandatory. It is a small island covering only a few square miles, lying just south of the Equator, and in longitude 167° E., nearly 200 miles from Ocean Island, one of the Gilbert and Ellice Group. Like the latter, its sole commercial export is rock **phosphate**, the two islands being exploited by the same British Company, employing imported coolie labour. Light railways have been built, and jetties for the rapid loading of the fertilizer, which is marketed in New Zealand, Australia and the United States. There are well-equipped residential quarters for the different classes of employees, and a wireless station affords communication with the outside world. Practically all the necessities of life are imported, local produce being limited to copra, fruit, vegetables and fish.

**NEPAL**

**Area, Population and General Conditions.**—Nepal is an independent Kingdom in the Himalayas with an area of about 54,000 square miles (rather larger than England) and a population estimated at 5½ millions. The Gurkhas, famous for their fighting qualities, are the dominant race, since they conquered the country over two centuries ago. The aboriginal inhabitants are, however, of Mongol stock, and allied to the Tibetans. The trade is entirely with British India, and the imports and exports are valued at about £5 millions sterling, or nearly £1 per head. Nepal lies to the north of the plain of the Ganges, and includes the section of the main mass and southern slopes of the Himalayas (with Mount Everest) together with the foothills of these mountains. The country is well watered, and on the hill slopes and valleys a wide range of crops can be grown, since the temperature varies from tropical heat to extreme cold according to

## ***New Caledonia and Dependencies.***

altitude. Hence cereals, drugs, oil-seeds and timber are sent southwards in exchange for sugar, textiles, hardware, petroleum and metal goods. A British Envoy resides at the capital, Katmandu, which has about 80,000 inhabitants, but relations with the outside world are not desired by the Nepalese.

## **NETHERLANDS, THE**

See **Holland**, p. 268.

## **NEW BRUNSWICK**

See **Canada**, p. 123.

## **NEW CALEDONIA AND DEPENDENCIES**

**Area and Population.**—The French Colony of New Caledonia is administered by a Governor. It has an area of 7,650 square miles, and the dependencies are the neighbouring Loyalty Islands, Isle of Pines and Huon Islands (barren), and the Wallis Islands, Futuna and Alofi to the north-east of Fiji, about 1,000 miles away. Their total area is about 900 square miles, and population 7,000. About 60 per cent. of the total population are Melanesians and Polynesians; there were 3,000 convicts at the penal station on New Caledonia in 1916, the remainder are colonists. Noumea, the principal town and port, on the south-west coast of New Caledonia, has 10,000 inhabitants. It is a station of the French fleet. The total trade was nearly £2 millions (£34 head) in 1919, the exports exceeding the imports.



FIG. 98. NEW CALEDONIA.

**Position and General Information.**—New Caledonia lies in the South Pacific Ocean, just within the tropics (between  $20^{\circ}$  S. and  $22\frac{1}{2}^{\circ}$  S., and between  $164^{\circ}$  E. and  $167^{\circ}$  E.), about 700 miles off the coast of Queensland, Australia. It is a long, narrow mountainous island, aligned from north-west to south-east, clothed with tropical forest, mountain pasture and mountain forest, the rainfall being fairly abundant and the temperature uniform. A great variety of tropical products—bananas, cassava, coco-nuts,

coffee, maize, tobacco—are grown for local use, and of these *coffee* (700–800 tons) and *copra* (600 tons in 1917) are also exported, besides a little cotton. There are also 200,000 *cattle*. The chief wealth of the island is, however, in minerals, which are abundant in the mountains, and are mined in accessible districts round the coast. **Nickel** ore (32,000 tons in 1917) and **chrome** ore (54,000 tons in 1918), are the most important, the nickel ores being locally smelted, and a little cobalt, lead and copper are also mined. The smaller islands produce *copra*. There are 90 miles of railway in New Caledonia, and harbour improvements at Noumea are in progress. There is irregular steamship connection with France and regular sailings from Sydney (N.S.W.), and hence the trade is divided between these countries. Flour, rice, provisions, cottons, coal, hardware, and French wines, are imported. There is a British Consul at Noumea.

## NEWFOUNDLAND AND LABRADOR

**Area and Population.**—Newfoundland is a British self-governing Colony, to which Labrador is attached as a Dependency. The area of Newfoundland is nearly 43,000 square miles (about  $1\frac{1}{2}$  times the size of Ireland), and has a population of rather over  $\frac{1}{4}$  million, i.e. about six persons to the square mile. The area of Labrador is 120,000 square miles (the size of Britain), and the population only 4,000, chiefly Eskimos and a few missionaries and fishermen. The total trade of Newfoundland has risen in value from £6 millions before the War to a total of £14 $\frac{1}{2}$  millions (£58 per head), with every prospect of a further increase, and the prosperity of the Colony is indicated by the excess of revenue over expenditure since 1915. The only town of importance is St. John's, the capital and chief seaport, with 34,000 inhabitants.

**Position and General Physical Conditions.**—The island of Newfoundland is situated at the mouth of the St. Lawrence estuary between latitudes 46° and 52° N., i.e. the greater part of it lies farther south than England. It is separated from Cape Breton Island (Nova Scotia) by Cabot Strait, and from Labrador by the much narrower Belle Isle Strait, which is frozen in winter. Labrador forms a narrow strip of territory along the north-east coast of Canada. It stretches from 51° to nearly 61° N., and is washed by the cold Labrador current, so that it is a bleak and barren land, unimportant save for the shore fisheries. Newfoundland has a very irregular coastline, and it is the south-eastern bays and peninsulas that have the mildest climate, so that here the bulk of the population is found. The Avalon peninsula, on which St. John's stands, has a less severe winter than Nova Scotia farther south, and the port of St. John's remains open. Generally speaking, the winter is cold, with heavy snow, while the summers are cool and damp, resembling those of the north-west Highlands of Scotland. Consequently there is much marsh, bog and moorland in Newfoundland, besides an abundance of lakes and rivers. Parts of the country are heavily timbered, but a great deal of the forest land is thin and poor. Structurally, Newfoundland forms the fringe of the worn-down mountain system (the Appalachians) that can be traced along the



## Newfoundland and Labrador.

whole eastern belt of North America ; hence the irregularity both of outline and of surface, and the similarity of mineral deposits. To the Ice Age is due the heavy deposits of boulder clay and the numerous waterfalls which are characteristic features. Labrador is largely a barren waste, but some areas are timbered.

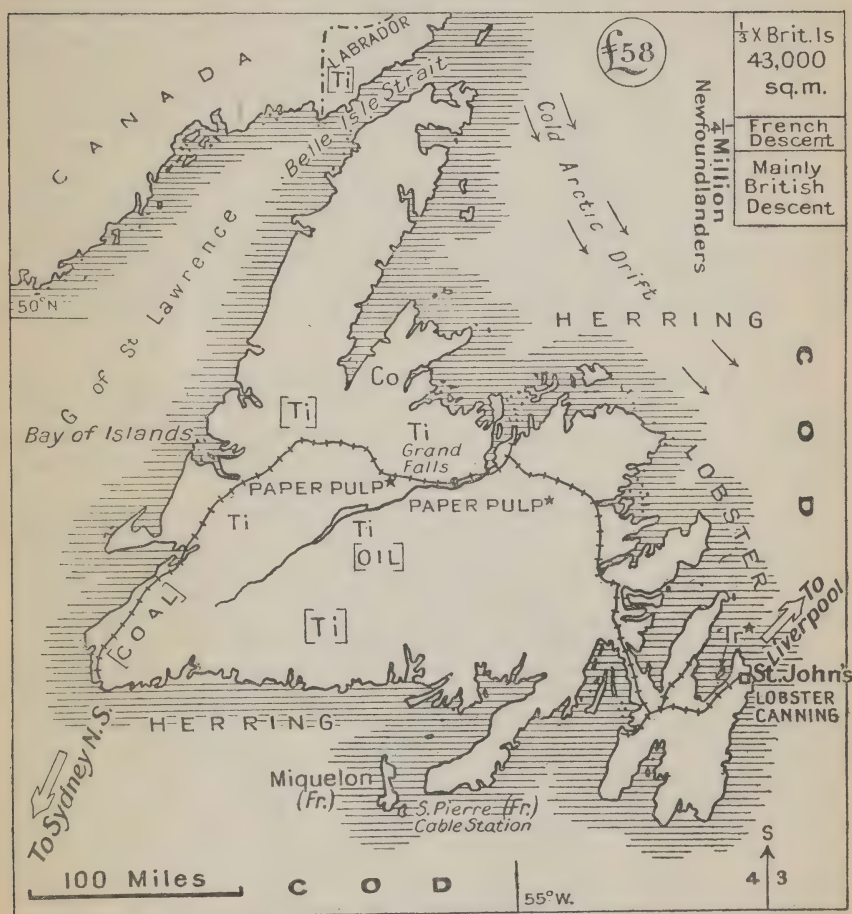


FIG. 99.—NEWFOUNDLAND.

**Human and Economic Conditions.**—Barely 3,000 of the inhabitants of Newfoundland are farmers, since the climate and soil conditions only allow of the growth of such crops as hay, oats, potatoes and turnips. Sheep are reared (100,000) and sufficient cattle and horses for local needs. The chief occupation is *fishing*, **dried cod** being the leading commercial product of Newfoundland, and representing more than half

## Newfoundland and Labrador.

the total value of the exports (£4 millions in 1917-18). **Cod liver oil** is also extracted to the value of over £ $\frac{1}{4}$  million. The cod are obtained partly from the famous Grand Banks which lie to the south-east of Newfoundland, and partly from the in-shore fisheries. Next in importance to cod are the *herring* fisheries, and there is also a small *seal* fishery, and a *lobster* canning industry.

The pine forests in the north give rise to a lumbering and saw-milling industry, the timber being consumed locally for dwellings, boats and ships. Of greater importance is the **paper-pulp** industry, for which there are both power and raw material. There are large mills at Grand Falls and Bishop's Falls, and the output of pulp and paper is worth over £ $\frac{1}{2}$  million. Two new mills, one a Norwegian enterprise, will shortly be built on the west and the east coasts respectively.

The principal *mining* industry is of **iron ore**, of which there are very large supplies. The chief beds are on Bell Island in Conception Bay, north-west of St. John's, the output being about a million tons of ore. There is also a **copper** mining industry, 16,000 tons of ore being raised in 1917, as against 35,000 in 1912. The deposits of **coal** which have been discovered near the railway in the west of the island are expected to supply local needs, although at present coal is imported.

**Trade Relations.**—The main railway runs from St. John's northward, then westward and south-westward to Port aux Basques, a point opposite Sydney (Cape Breton Island). A number of branch lines serve the chief farming and fishing settlements of the south-east, and communications are also maintained by a fleet of coasting steamers.

The lack of wooden fishing vessels and fish carriers has hampered Newfoundland industry, and the curtailment of shipping facilities with the Mother Country has altered the direction of trade in a marked way. In spite of the increased imports and exports, the value of the trade with the United Kingdom has decreased, while there has been a great increase in trade with both the United States and Canada. Except for West Indian molasses and Indian tea, the imports of Newfoundland are almost entirely from the three countries named. They include such provisions as flour (the largest single item) and salt pork, besides manufactured goods (textiles, hardware, machinery), coal and oil. The export trade is more widely distributed, the dried cod finding a ready market in Catholic countries, including South America, parts of the West Indies, and the Western Mediterranean. Paper pulp and paper come to England, while the fish oils are chiefly marketed in Canada and the States. If cold storage were available, fresh fish could readily be shipped from Newfoundland to the United Kingdom in almost unlimited quantities.

**General Information.**—The unit of currency is the gold dollar equivalent to 4s. 1 $\frac{1}{4}$ d. of British money. The chief banking establishments at St. John's are the Royal Bank of Canada and the Bank of Montreal. Nearly a third of the population are of French descent, and are Roman Catholics. The weight of fish is usually given in *quintals*, the quintal being one-tenth of a metric ton of 2,205 lb. Mails reach St. John's from Liverpool in 6 $\frac{1}{2}$  days. There is cable connection with the United Kingdom and Canada.

*New Guinea (Papua and former German New Guinea).*

## NEW GUINEA (PAPUA AND FORMER GERMAN NEW GUINEA)

**Area and Population.**—Papua (formerly British New Guinea) is a dependency of Australia, and is administered by a Lieutenant-Governor. With it may be included Kaiser Wilhelm Land (German New Guinea), for which Australia has a mandate (at present administered by the military). The total area of the country is about 160,000 square miles (five times the area of Ireland), and a conservative estimate puts the population at 300,000 to 400,000, but the higher figure of  $\frac{3}{4}$  million has also been suggested. There are besides over a thousand Europeans, the chief settlement being Port Moresby, opposite the Australian coast. Madang (formerly Friedrich Wilhelm's Hafen) is the chief port in the north.

The external trade is at present worth barely £1 million but the development of the country has hardly begun. The Papuans make good plantation labourers, for they are racially akin to the African negroes, and are more vigorous than the Polynesian peoples: only about 10 per cent., however, are in contact with the Europeans, either as producers or labourers.



FIG. 100.—BRITISH NEW GUINEA.

### Position, Climate and General Physical Conditions.

—The territory under British control is that part of the great island of New Guinea which lies east of longitude  $141^{\circ}$  E., the neighbouring area being Dutch. It extends from within  $3^{\circ}$  to  $11^{\circ}$  south of the Equator, and is separated by Torres Strait, 100 miles wide, from Australia. The northerly regions have an equatorial climate, with uniform heat and abun-



**New Guinea (Papua and former German New Guinea).**

dant rain nearly all the year. The south has, however, a comparatively dry season in the winter months, when the south-east wind blows, while it has heavy rains during the north-west monsoon. A small sheltered section of the south coast has only a moderate rainfall even in summer. Hence, whereas in the north and on the west mountain slopes there is a dense rain-forest, difficult to penetrate, in the south there are lighter woodlands, passing in places into open grassy savannahs. On the high plateaus of the interior there are also patches of savannah.

The coastal plains are narrow, and most of the country is elevated, save for the great plain of the Fly River in the south-west. This river, like the Sepik and Ramu which flow to the north coast, is suitable for floating timber, which is, of course, abundant. The mountain ranges have a N.N.W. to S.S.E. trend, giving the territory its long peninsular extension eastwards. Mangrove swamps fringe the coast.

**Human and Economic Conditions.**—The natives grow yams, taro, *sugar*, *sago*, *bananas* and *coco-nuts* for their own use, and the last four might readily be produced on a commercial scale. The region behind Madang, the chief northern settlement, was planted by the Germans with *rubber*, *cacao* and *coco-nuts*, which are beginning to come into bearing, the last named being by far the most important. To the east of Port Moresby, where it is very rainy, there are also some 8,000 acres under rubber, but in general the drier southern climate makes the British planters prefer the coco-nut (43,000 acres), while in the exceptionally dry area already mentioned, lying west of Port Moresby, **sisal hemp** has been found to grow admirably. Large plantations have been laid out, and decorticating machinery set up, and this promises to become a leading product, especially as the demands it makes for labour are not great. Sugar, banana and pineapple plantations would all do well if capital and labour were forthcoming. It is suggested also that the abundant nipa palm would supply raw material for power alcohol. At present land communications are lacking, and communication is chiefly by launches, cutters and small steamers, so that settlement is confined to the coasts and rivers.

The savannahs afford natural pasture for *cattle*, but at present there are only 1,300 of these animals in the country. Among valuable timbers, *ebony*, *sandal-wood* and *rattans* may be mentioned.

The territory is rich in *minerals*, of which *gold* and *copper* are already exploited on a small scale. **Oil** has been discovered, and it is possibly abundant here as in so many other parts of the East Indies, but so far the results of boring have been disappointing.

**General Information.**—Trade is chiefly with Australia, Sydney serving as an entrepôt from which drapery, hardware and food-stuffs are distributed. The Bank of New South Wales has a branch at Port Moresby. The currency and legal tender in Papua are as in Australia. This territory is at present subsidized by the Australian Government.

There are wireless stations at Port Moresby and Samarai (a port in the extreme south-east), and a cable runs from Astrolabe Bay to Yap, the important Japanese cable station.

## New Zealand.

### THE NEW HEBRIDES

**Area and Population.**—The New Hebrides are jointly administered by the British and French officials, there being two Residents. The area of the islands (which include Espiritu Santo, Mallicolo, Epi, Sandwich, Erromanga, and others) is 5,100 square miles, and the population about 70,000, of whom two or three hundred are Europeans, chiefly French, the rest Kanakas (Melanesians and Polynesians). The total trade is valued at about £½ million.<sup>1</sup>

**Position and General Information.**—The New Hebrides prolong the line of the Bismarck and Solomon Islands, and lie about 300 miles south-east of the latter, and to the north of New Caledonia. They stretch between latitudes 15° S. and 20° S., and are therefore tropical, resembling in climate the Fiji Islands. They are mountainous in character, and clothed with tropical forest and jungle. Besides the various fruits and food-stuffs grown for local use, there are plantations of *coffee*, *cacao* and *cotton*, these products being exported on a small scale, but *copra*, from the numerous coco-nut groves, is the chief export. A little *timber* is worked. There is fairly frequent steamer connection with the neighbouring islands and with Sydney, N.S.W., to which the produce is mainly shipped, and which sends in return provisions, clothing, hardware, and other necessities for the colonists.

### NEW SOUTH WALES

See *Australia*, p. 34.

### NEW ZEALAND

**Area and Population.**—New Zealand consists of three main islands, known as North, South and Stewart Islands, and some small groups (Chatham, Auckland, Campbell, Savage, Antipodes, Bounty and Kermadec Islands) in the neighbouring ocean, which are of no commercial importance. The *Cook Islands* and other South Pacific Islands were annexed in 1901, and cover an area of 280 square miles, with a population of 13,000. New Zealand also administers *Samoa*, formerly a German possession.

The total area of New Zealand proper is 103,581 square miles, and as the population is rather more than 1½ million persons, the density is twelve to the square mile. Apart from about 50,000 Maoris (aborigines) and a few thousand immigrant Asiatics and naturalized Europeans, the population is of British origin. The total foreign trade now (1919, 1920) amounts in round figures to £96 millions, i.e. nearly £80 *per capita*, of which £42 represents exports and £38 imports. This *per capita* export is greatly in excess of that of any other British Colony, and is not unrelated to the uniformly high standard of education, physique and intelligence throughout the Dominion.

**General Physical Conditions.**—North Island lies in similar latitudes to Spain, while South Island has a position corresponding to that of France. Hence the climate is of the warm temperate type, with an added mildness and more abundant rainfall, owing to the fact that the Dominion is an island group. Westerly winds are the most frequent, as they are in Western Europe, and cyclonic eddies bring with them stormy weather,

<sup>1</sup> For Map see Gilbert and Ellice Islands.

New Zealand.

which is most severe on the western shores of the islands. The eastern or lee sides of the uplands and mountains are relatively dry, and in North



FIG. 101.—NEW ZEALAND.



## New Zealand.

Island, as in Spain, there is a tendency for the summer months to be drier than the winter.

A mountain range (the Southern Alps), with a trend from south-west to north-east, runs through South Island; it is broken by Cook Straits, and then continues through North Island from Wellington to East Cape, forming the Tararua, Ruahine and Raukumara Mountains. A second chain at right angles to that (i.e. from south-east to north-west), but very much worn down, and partly drowned under the sea, forms the irregular peninsula from Auckland to North Cape. The centre of North Island is also mountainous, but it is a region built by volcanic outpourings, which still occur on a small scale. Here there are hot springs. Mount Egmont, which makes a promontory on the south-west of North Island is also a volcano, while two volcanic bosses on the east coast of South Island shelter Lyttelton and Otago harbours respectively. The Southern Alps are not unlike the highlands of Scandinavia, for in the south coast they are fringed with magnificent fiords, while on their landward margin there are long, narrow, valley lakes, from which swift rivers, broken by falls and rapids, run down to the east coast. This hydrography is ideal from the standpoint of developing water-power.

The lowland areas, especially in South Island, are relatively restricted, and upon these the population is mainly concentrated. The most extensive is the Canterbury plains, in the lee of the Southern Alps, and consequently the driest region in New Zealand. Next in point of area are the Southlands plains, in the extreme south, with which may be included the lower Clutha valley. In North Island the principal lowland is the lower basin of the Waikato River, which flows north-westwards from the volcanic region, and enters the sea about twenty miles from Auckland. Apart from these there are numbers of small coastal plains and valleys separated by mountain saddles.

Except for the dry Canterbury Plains, which were always open country, the Dominion was originally clothed with forest and natural meadow, of which some 27,000 square miles (17 million acres) still remain. The most valuable *timber* trees are the great kauri pine of the Auckland district, and the red, black and white pines. The last named is used for the light boxes in which dairy produce is sent abroad, and the supply is rather seriously diminishing. Beech trees (known locally as birch) and tree-ferns are also very abundant. The production is more than sufficient for home requirements.

**Human and Economic Conditions.**—The interests of New Zealand are overwhelmingly pastoral, and of the cultivated land 88 per cent. is under English sown grasses, while there is also 16 million acres of native "tussock" grasses available on occupied holdings. One quarter of the remaining arable land (nearly  $\frac{1}{2}$  million acres) is under **wheat** and oats, the latter predominating up to 1914, and in 1919–1920, although during the war years the greater acreage was under wheat. The pasturage is more abundant and richer in North Island than in South, and consequently the former has 56 per cent. ( $14\frac{3}{4}$  millions) of the sheep, and 80 per cent. ( $2\frac{1}{4}$  millions) of the cattle of the Dominion, while there are  $11\frac{1}{4}$  million sheep and  $\frac{1}{2}$  million cattle in South Island. The drier pastures of South Island are suited to the fine-woolled merino breeds of **sheep**, while the Romney breed is found to thrive in the moister regions of North Island. Southdowns are largely bred to supply lambs for slaughtering, but the great majority of the flocks

## New Zealand.

are cross-breeds. The number of sheep varies with market conditions, and the low wool prices of 1921 have led to a reduction of the flocks to 23 million, against 26½ million in 1918.

The pure-bred **cattle** are generally Jerseys, Ayrshires and Holsteins, i.e. notable milking strains, but the dairy herds number only 828,000, and on an average 300,000 beef cattle are slaughtered annually. The average yearly slaughter of sheep for food purposes is 3½ millions, and of lambs rather more; 73 per cent. of this total is exported, giving 2 million cwt. of frozen meat. To this export must be added ½ to ¾ million cwt. of beef, representing the 25 to 30 per cent. of this commodity not retained for home consumption. The frozen meat trade has expanded even more rapidly than the wool trade, the weight exported having doubled since 1900, and the value (including preserved meat) reaching over £10 millions.

The **wool** exported has lately averaged 200 million lb., worth over £12 millions, while 7 million lb. are consumed in the local mills. Thus wool easily heads the list of exports, and was until recently followed by frozen meat, but the latter has now been equalled by the products of the *dairying industry*, the butter and cheese export for 1919 being valued at £11 millions. The dairy farmers have formed themselves into co-operative societies, and own the cheese and butter factories, purchasing their individual requirements also through their societies. The introduction of milking machinery has enabled them to overcome the great difficulty of labour shortage. The Taranaki district (west of North Island) takes the lead for cheese, and the Auckland district for butter, while Wellington has the second place for cheese and the third for butter. These three districts naturally have also the most pigs, of which, however, there are only ¼ million in the Dominion, the produce sufficing for home consumption only. With so many animals slaughtered annually, hides, skins and tallow make up a valuable export, worth £6 millions.

*Mining* ranks next to pastoral work as a source of wealth in New Zealand, there being **gold** mined in both islands. The most important are the quartz lodes in the mountain range running between the Gulf of Hauraki and the Bay of Plenty. The refining of the gold from these mines also yields silver, worth £105,000, but the export of gold has fallen from an average of £2 millions yearly between 1901 and 1910 to little more than £1 million in the years 1916-1919.

The **coal** output is more valuable than the gold, and averages 2 million tons yearly, of which a little is exported for bunkering, leaving ½ million of the local consumption to be made up by import. The chief mines are on the west coast of South Island, behind the Southern Alps, their outlets being Westport and Greymouth. Third in importance of yield are the mines of Waikato to the south of Auckland, and there are smaller mines in Southlands, Otago and North Auckland. A blast furnace for smelting local iron ore has been erected on the West Coast coalfield.

**Kauri gum**, which for statistical purposes ranks as a mineral, is a fossil resin used in the manufacture of varnish and linoleum. It occurs immediately below the surface in the Auckland peninsula, and is produced to the value of £300,000 to £400,000 annually. Recently the distillation of an oil, resembling petrol, from peat which is rich in the gum has proved a most profitable industry. So far, paying wells of true petroleum have not been discovered, although the Government is assisting private drilling operations.

ERRATA.—Page 355.

Line 27, read "Wellington, the capital (100,000 inhabitants)."

" 29. " "Auckland, the original capital."





## New Zealand.

The single vegetable product of value in external trade is the **New Zealand flax** (*Phormium tenax*), which grows wild over wide areas, especially in Wellington district, and yields a strong fibre for rope-making, besides tow. In 1917 the fibre and tow exported were valued at £1½ millions.

The *industries* of New Zealand are those immediately derived from her animal products—freezing establishments, butter and cheese factories, tanneries, flour-mills, woollen mills, soap and candle factories. There are also a large number of saw-mills, producing sash-frames, skirtings, floor-boards and boxes of local timber. Only 50,000 persons, however, are employed in industry, and the scarcity of labour retards development. The woollen mills, for example, which turn out tweeds, flannels and blankets, cannot supply even the home market.

The abundance of *water-power*, however, is favourable to industry, and the establishment of power stations is going rapidly ahead. The largest plant is that supplying Christchurch and district (the Lake Coleridge works), while the Dunedin installation (Waipori River works) is also very important. A third large generating station is at Horahora on Waikato River. There is also much power developed in the rich dairying districts of North Island. The lakes and waterfalls of the southern section of the Southern Alps are remote from any developed region, and the resemblance to Scandinavia suggests development on similar lines, i.e. the establishment of electro-chemical and electro-metallurgic industries. Phosphates, forming raw material for a fertiliser industry, are abundant in the Pacific islands, while Australia has an enormous wealth of metalliferous ores.

**Trade Relations.**—The four largest cities of the Dominion are seaports, and of these, Wellington (100,000 inhabitants) being the most centrally placed, has the largest total trade, 27 per cent. of the whole. Auckland, the capital and largest city (145,000 inhabitants), with its harbour opening to the Pacific, has 23 per cent. of the trade, followed by Lyttelton, the port of Christchurch (100,000 inhabitants), with 14 per cent., and Dunedin (72,000 inhabitants) with 9 per cent. The two latter are the outlets of the Canterbury plains. Besides these four, there are only half a dozen towns with as many as 15,000 to 20,000 inhabitants, including Wanganui, Napier and Gisborne, the respective centres of three grazing and dairying districts in North Island, Invercargill, the port of the Southlands plains, Palmerston and Timaru, two townships of the Canterbury plains.

Four-fifths of the produce of New Zealand goes to the United Kingdom although a certain proportion of this is re-exported. About a quarter of the wool, for example, is re-distributed from London among the manufacturing centres of the Continent, and much of the phormium fibre and tow, and of the kauri gum, is not retained in Britain. Of the remainder of the New Zealand exports, the United States and Australia respectively take £2 millions and £4 millions in value, and Canada about half the latter amount. Trade with the Pacific Islands totals rather over £2 millions and with all other countries rather less than this.

Of the imports, wearing apparel and textiles form the largest class—about £6 per head of population—while iron and steel, machinery, agricultural implements, tools, railway plant, hardware and other metal goods, make up the second largest total. Sugar and tea cost well over £1½ millions, intoxicating liquors and tobacco about £1½ million, while motor-cars and cycles

**Nicaragua.**

have recently passed the million figure, as has oil, and the group comprising paper, printed books and stationery.

The imports come from a wider field than that to which the exports are consigned. Thus, the supply of sugar—about  $2\frac{1}{2}$  lb. per head per week—which costs over £1 million, comes from the Fiji Islands, while tea comes from Ceylon; oil and automobiles are supplied by the United States, rice, bags, sacks, hessians and jute goods generally by India, while the Australian trade includes manufactures from the Commonwealth, timber, flour, fruit and wine, besides re-exports from Europe. The imports from the United Kingdom—mainly manufactured goods—amounted in a normal year to 50 per cent. of the total, which was reduced by 10 per cent. during the War, during which period the United States' share rose to 20 per cent. Germany's 3 per cent. of pre-war trade disappeared, and of this the principal items were materials for motor-cars, pianos, fancy goods, toys, glassware and chemical manures; textiles and iron goods were quite unimportant, British makes being preferred. Japan's trade has now reached 4 per cent., this including silks, cottons and fancy goods.

**General Information.**—The customs tariffs of New Zealand are protective, but give preference to British goods. The railways (except for 29 miles private) are State-owned, have a uniform 3 ft. 6 in. gauge, and a total length of nearly 3,000 miles. The net profit has risen from  $3\frac{1}{4}$  to  $4\frac{1}{2}$  per cent. on the capital expenditure. The Otira Tunnel which will link up the west coast with Christchurch is approaching completion. A Pacific cable from Auckland to Vancouver, British Columbia, facilitates rapid communication with America and Europe, and Auckland has also cable-communication with Sydney. London mails reach Wellington in 46 days. Sydney mails arrive in four days. There are six banks of issue trading in New Zealand (of which four are Australian), the Bank of New Zealand having branches in London, Australia, Fiji and Samoa. There is an Imperial Trade Commissioner in Wellington, and a Trade Correspondent in Dunedin.

## NICARÁGUA

**Area and Population.**—The Republic of Nicaragua has an area of 49,200 square miles (nearly as large as England) and a population of rather more than  $\frac{3}{4}$  million. Over half a million of these are found within 50 miles of the Pacific coast, where the principal towns are situated, namely Managua (60,000 inhabitants), the capital, Leon (74,000 inhabitants), Granada (20,000 inhabitants). Nicaragua has so far not joined the Federation of Central American Republics, owing to its special treaty relations with the United States. The total trade averages under £3 millions, i.e. less than £4 a head, and large areas of the Republic remain undeveloped for lack of capital and labour.<sup>1</sup>

**Position and General Physical Conditions.**—Nicaragua lies in Central America, between Honduras and Costa Rica. It extends from latitude  $11^{\circ}$  N. to latitude  $15^{\circ}$  N., i.e. it is in a region of uniform heat

<sup>1</sup> For Map see Guatemala.



## Nicaragua.

and abundant rains, especially in summer. The prevailing winds (trades) blow from the Caribbean Sea, and the western belt, lying in the lee of the highlands, has a well-marked dry season in the winter months. This belt of highlands runs through the centre of the country, dropping very steeply to a longitudinal trough parallel to the west coast, in which lie two large lakes, Managua and Nicaragua. From the latter the San Juan River drains to the Caribbean Sea, and forms the southern boundary of the Republic. This waterway offered an alternative basis to the Panama Isthmus for an interoceanic canal, and the route was purchased by the United States Government in 1916. The steep escarpment already mentioned as overlooking the western trough forms a formidable barrier between the west and east of the Republic. The highlands slope eastward and terminate in a broad coastal plain, where the inhabitants are mainly pure-bred Indians and negroes, and not of mixed Spanish and Indian descent like the Nicaraguans of the West. As elsewhere in Central America, valuable forests containing hardwoods cover the lowlands, while on the highlands there are temperate forests and open savannahs.

**Human and Economic Conditions.**—The western region is self-supporting as regards food, growing *maize* and beans in large quantities, besides sugar, cacao, coffee, potatoes and fruits. **Cattle** are reared in very large numbers on the upland pastures, and supply meat, milk and cheese. *Pigs* are also reared, and *tobacco* is very generally grown. The money crop of this region is **coffee**, which is grown at elevations of 1,000 ft. and upwards. The annual crop is about 10,000 tons, and the export is now worth over £1 million. A little **sugar** is also available for export, besides **hides** and **skins**. In the eastern region the population is mainly engaged on the **banana** plantations, and **coco-nuts** are grown, although on a much smaller scale. Food for this region (flour, lard, groceries) is imported from the United States.

The forests are exploited on both seaboard, and there is an important export of *mahogany*, *cedar*, and *dyerwoods* (value £400,000), besides *chicle* (gum). Mining is on the increase, **gold** being worked by British and American companies in the north-east (yearly output about £200,000).

**Trade Relations.**—The greater part of the trade is with the United States (over £2 millions), that from the two chief seaports, Corinto and San Juan del Sur, which are on the Pacific, going through the Panama Canal. Corinto is the terminus of the only railway, which runs through Leon, Managua and Granada on Lake Nicaragua, and has been sold to an American Company. Corinto harbour is a very safe one, and there is 26 ft. of water on the bar. A New Orleans Syndicate has contracted for a railway from Bluefields, the chief eastern seaport (for small vessels only), to Matagalpa, the largest town on the plateau, and thence down the escarpment to join the existing line between Managua and Granada. Roads are at present few, but they are being extended.

The trade between the United Kingdom and Nicaragua amounted in 1919 to rather more than £¼ million and in 1920 to £½ million. Cotton goods and iron and steel goods are principally in demand.

**General Information.**—The theoretical unit of currency is the gold *cordoba*, equivalent to the United States dollar, and introduced in 1912, but the reform fell through, and actually since 1914 there has again been

**Nigeria.**

only inconvertible paper money in circulation. The principal banking establishments are the National Bank of Nicaragua and the Commercial Bank of Spanish America.

The metric system of weights and measures is in use. The language spoken is Spanish, and the prevailing religion is Roman Catholic. There are Universities at Managua, Leon and Granada. Mails reach Nicaragua in 25 days. British Consuls are stationed at Managua and Bluefields, Vice-Consuls at Matagalpa and Corinto.

**NIGERIA**

**Area and Population.**—The British Colony and Protectorate of Nigeria is administered by a Governor. Its area is approximately 332,000 square miles (nearly six times the area of England and Wales), and the estimated population  $17\frac{1}{2}$  millions. There are under 3,000 resident Europeans, including magistrates and officials, missionaries, and traders. Of these there are about 500 at Lagos, the centre of administration, the terminus of the chief railway system, and the best and nearest seaport to Europe. The total population of this town is 73,000, but it is exceeded in size by several native cities, notably Ibadan in Southern Nigeria, with 175,000 inhabitants, and Kano in Northern Nigeria, with 100,000. The existence of these great centres of trade and industry indicates the fact that the native peoples, notably the Yorubas, occupying the hinterland of Lagos, and the Hausas and Fulahs, who are the dominant races of Northern Nigeria, have reached a higher level of civilisation than the majority of tropical African peoples. The Yorubas are negroes, and pagans, like the rest of the Southern Nigerian tribes, the Hausas have a slight admixture of Hamitic (Southern Mediterranean) blood, while among the Fulahs the Hamitic strain is dominant. Among the two last-named races Mohammedanism is the accepted religion, although not very actively practised. Nigeria is essentially a "black man's land," and the part played by Europeans must be limited to the encouragement of improved agricultural methods, the improvement of means of transport and other trade facilities, and the directing and financing of mining and other enterprises. The foreign trade was about £14½ millions before the War, and lack of transport facilities led to a falling off during the War, but already trade is recovering, and both in volume and value is susceptible of great increase. The latest total (1919) is £27 millions (£1·7 per capita), of which nearly £15 millions represents exports. The Governor of Nigeria also administers an adjacent strip—33,000 square miles—of Cameroon, with about half a million people. It includes Buea, the centre of the former German administration, healthily situated on the slope of Cameroon Peak, together with its port of Victoria.

**Position and Climate.**—Nigeria lies between latitudes 4° and 14° N. of the Equator, on the shore of the Gulf of Guinea in West Africa. Hence it has a tropical climate, with a combination of excessive heat and moisture near the coast, and drier conditions, coupled with greater variations in the temperature of day and night, summer and winter, towards the interior. The rains follow the sun, so that the dry season occurs when the sun approaches the Southern Tropic (November, December, January), and

## Nigeria.

lasts from three months in the Niger delta up to nine months in the extreme north, which borders on the Sahara Desert. The rains are brought by the south-west winds from the Gulf of Guinea, which are displaced by the dry, dust-laden harmattan, blowing from the north-east during the dry season. Violent storms mark the change of the season.

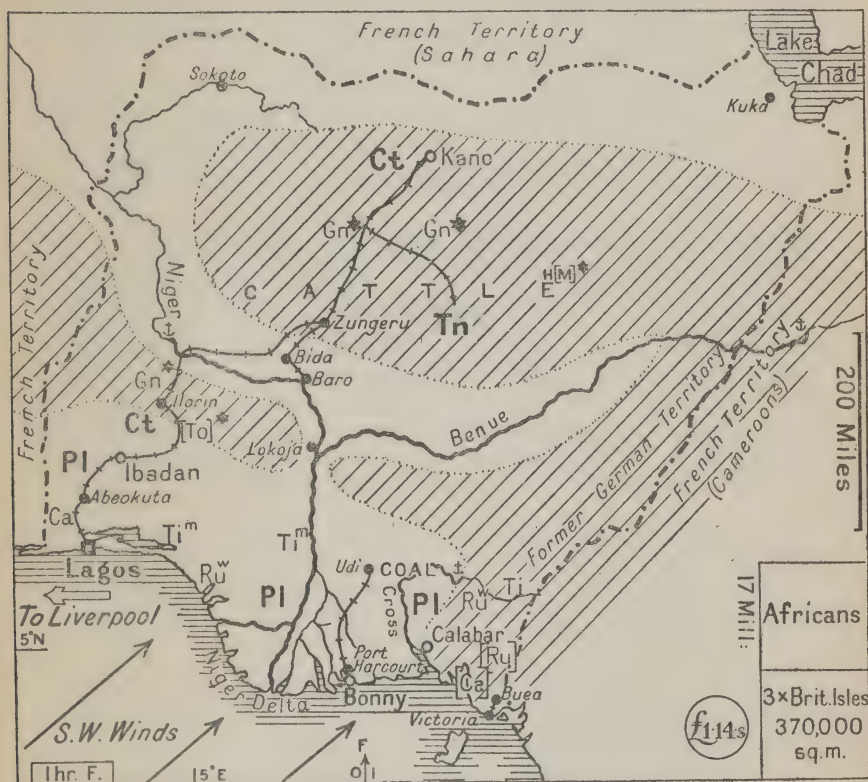


FIG. 102.—NIGERIA.

**General Physical Conditions.**—Northern Nigeria forms part of the North African tableland, and has on the whole a slope towards the north, the depression in which Lake Chad lies forming the north-east frontier of the country. The tableland is trenched by two main valleys, that of the Niger coming from the north-west and that of the Benue coming from the north-east. These rivers unite and drop as a single great river from the tableland, to cross the coast plain of Southern Nigeria, which is widened by the great delta built out by the Niger. Along the edge of the coast plain is a series of lagoons and creeks stretching from the western frontier to the delta, which forms a continuous natural inland waterway of great value along this surf-beaten coast.

The creeks and tidal waters are bordered by mangrove swamps, and on



**Nigeria.**

the delta and coast plain is a very dense and luxuriant forest growth, which includes many valuable hardwood trees, such as mahogany, ebony, rose-wood, besides oil and other palms, and rubber-yielding creepers. This forest thins out northwards, and gives place to a rich savannah, where patches of woodland are scattered over a great expanse of tall grasses. With increasing distance north the trees become fewer, and of types more resistant to prolonged drought, and in the extreme north the continuous carpet of grasses is replaced by a scrubland, on which succulent and thorny bushes, and coarse herbage, alone maintain a foothold.

Generally speaking, the thinner and more easily cleared forest belt and the rich park-like savannah afford conditions entirely favourable to agriculture, and the whole of the region outside the forests forms good grazing country. In the north, however, drought renders the harvests more uncertain, and irrigation is very desirable. The tsetse fly prevents stock-rearing in the forest belt.

**Human and Economic Conditions.**—There is a very large volume of internal trade in Nigeria, Kano being an emporium for the Western Sudan generally, and having important native manufactures of cotton and "morocco" leather, which are exchanged for salt, feathers and gums from the desert. There is also an exchange between north and south, the kola nuts of the forest belt being highly esteemed for chewing by the grassland peoples of the tableland. Salt is also sent inland from the coast, and cattle for meat are purchased by the Yorubas from the northern tribes. Particular towns also have a reputation for such commodities as brassware, earthenware, ironwork and canoes, which, therefore, form articles of trade.

In the main, the native farmer produces only a small surplus, since the plough is unknown, and shallow hoe cultivation, with but little manuring, is the rule. Maize, millet, rice, sugar, sweet potatoes and so forth are not commercially important. Throughout the country, however, **ground-nuts** are cultivated, and the opening up of the railways has led to a trade in this product which, although only of a few years' growth, yielded an export worth £ $\frac{3}{4}$  million in 1919. Both from the Yoruba country and from the densely peopled regions round Kano and Sokoto a great increase may be expected. In the same regions, among others, **cotton** has long been grown for native use, and, although the Nigerian cotton is of short staple only, it has been found worth while to induce the farmers to cultivate it also as a money crop. Recent experiments have led to the discovery of a long staple variety which can be grown with success, and seed has been distributed. The chief output at present is round Ibadan and other Yoruba towns, where ginning factories have been established, but the Kano region will undoubtedly yield a surplus. So far the estimate of 30,000 bales annually has not been reached, partly because the high price of imported piece goods has stimulated the local hand-weaving industry and so increased consumption. In 1919, however, the export reached 60,000 cwt., worth nearly £ $\frac{1}{2}$  million. A third crop, which the Yorubas round Ilorin and the savannah tribes are accustomed to grow somewhat carefully, is **tobacco**, and this is now being grown for export under European direction. In the coast belt, and especially in the east near the Cameroons frontier and behind Calabar, the climate is suitable for **cacao** plantations, and also for rubber. At present the chief yield of cacao is from plantations behind Lagos, where the drought is rather too long for

## Nigeria.

the tree to be very successful. The yield is worth about £1 million. There are besides the considerable cacao plantations laid down by the Germans, in the annexed portion of the Cameroons. Here some *rubber* is also planted, and valuable experimental agricultural work is carried on at Victoria.

As has been mentioned, the savannahs, both richer and poorer, are admirable *cattle*-grazing lands, and the Fulahs and other northern peoples have many millions of horned cattle, besides woolless sheep. The opening of the railway has led to a trade in **hides** and **skins** worth over £1 million, but there is room for the development of a meat industry. At present there is only a small cold-storage works at Lagos supplying fresh meat and vegetables to the European population, which is of importance as improving the health conditions of the colony.

The value of all this farm produce is still greatly exceeded by that of the wild forest produce. **Palm oil** and **palm kernels**, which a few years ago accounted for over three-quarters of the external trade, still account for over half. The oil-palm occurs throughout the forest belt and in the Benue and Niger valleys, and the nuts are brought in to all the trading stations from Lagos to Calabar. Wild **rubber** is also plentiful, although it is not of very good quality, and nurseries for seedlings are maintained by the Government to keep up the supply. The timber resources of the country are far from being fully exploited, but **mahogany** is felled wherever it occurs in proximity to the creeks or rivers. All these products are also present in (former German) Cameroon. In the savannah region the natives make use of an edible oil and fat derived from the shea-tree, and this *shea butter* is an increasing item of export. A variety of *wild silk*, just discovered, may prove of value.

The mineral resources of Nigeria are considerable, the natives having long worked deposits of iron, tin and lead, and of these the **tin** mines are being commercially exploited on a large scale. They occur chiefly on the Bauchi tableland to the north of the Benue valley, and the region is served by a branch of the Lagos-Kano railway. The output in 1917 was nearly 10,000 tons, and the export valued at £1½ millions. There is also a **coal** field at Udi in Southern Nigeria, 150 miles north of Port Harcourt, which lies in the east of the Niger delta. A railway has been constructed between these two points, which is being extended north to join the existing system at the Kaduna River. The coal is mined for use on the railways. There is some **oil** to the north of Lagos, but whether of importance is uncertain.

**Trade Relations.**—The products of Nigeria are sent mainly to the United Kingdom, and in smaller quantities to France and the United States, although before the War a very considerable proportion was consigned to Germany. Three-quarters of the imports come from Britain, these including cotton piece goods, spirits, iron and steel goods and machinery, bridge and railway material, but latterly a part of the construction material has come from the United States, which sent imports worth nearly £700,000 in 1917. Figures available for 1919 show that goods to the value of £1½ millions were imported from the States, and that the exports to that country were nearly £1¾ millions. The Government annually spends large sums on railways and other public works. Goods consigned to West Africa require special packing, since, except at Lagos, they must be transhipped to lighters and surf-boats, usually when a very heavy sea is running. In addition to the railways there is interior communication by means of



**Norway.**

launches and shallow-draft steamers on the various waterways, and among the natives by canoe.

**General Information.**—The Bank of West Africa, Ltd., and the Colonial Bank have branches in Nigeria. A special silver currency, based on gold and securities, with coins corresponding to those of Britain, has been introduced, and during the War paper currency was circulated, but the notes of small denomination have not been readily accepted by native traders. Over 70,000 children are attending various schools where English is taught. Weekly mails from Liverpool reach Lagos, Forcados and Calabar in about fifteen days. There is an Imperial Trade Correspondent at Lagos.

## NORWAY

**Area and Population.**—The Kingdom of Norway has an area of 125,000 square miles (rather larger than the British Isles), and a population of about  $2\frac{3}{4}$  millions, i.e. rather more than twenty persons to the square mile. This low figure is due to the fact that owing to its elevation and high latitude about three-quarters of the country is unproductive. The foreign trade in 1914 totalled £54 millions, or about £21 *per capita*, while in 1917–19 it averaged £145 millions, or about £54 *per capita*. This figure would be even higher if the temporary appreciation of the krone were considered. The imports into Norway are normally higher than the exports, since they represent also the value of services rendered to other nations by the Norwegian merchant marine and by Norwegian sailors under foreign flags. The disparity was greatly increased during the war years. In 1920, however, the slump in freights, following closely on a period of heavy speculative buying on the part of importers, led to a “real” instead of an apparent adverse balance, so that in that year the krone fell 25 per cent. below par. The very high *per capita* trade of Norway is due to the fact that food staples as well as raw materials and manufactures must be imported, the country producing relatively few commodities, of which the bulk is shipped abroad. The bulk of the population (70 per cent.) live in rural areas, the only considerable city being Christiania, the capital, with 260,000 inhabitants. The fishing centre and seaport of Bergen has over 90,000, while Trondhjem and Stavanger have each about 50,000, and Drammen 26,000 inhabitants. The increase in population is slow, the excess of births being under 30,000; while nearly 6,000 people emigrate each year, mainly to the United States, but also in considerable numbers to Canada. The State religion is Protestant and the standard of education is high.

**Position and Climate.**—Norway forms part of the Scandinavian peninsula, and overlooks the Norway Sea, a part of the North Atlantic Ocean. Southward it faces the Skager-Rak entry to the Baltic Sea, northward it is washed by the Arctic Ocean, while eastward it marches with Sweden, and in the extreme north-east with the Republic of Finland. The extreme south of Norway is in the latitude of the north of Scotland, for it extends from 58° N. to 71° N., i.e. a large area lies within the Frigid Zone. The prevailing oceanic winds, however, and the warm Atlantic drift which passes the western and northern coast, render the climate of the lowlands unusually mild for the latitude, and the harbours remain open all the



winter—a factor of importance in a country largely dependent on the sea. The temperature falls very rapidly immediately the seaboard is left behind, and this fall is accentuated by the altitude of the interior, which consequently



FIG. 103.—NORWAY.

has severe winters and an abundance of snow. The summers are cool, and as the prevailing winds are onshore, and the country is mountainous, the weather is also very rainy—much resembling that of the north-west Highlands of Scotland.

**General Physical Conditions.**—Norway is a lofty plateau, deeply dissected along its western margin by long winding fiords which penetrate far into the land, and afford important lines of communication, e.g. the Sogne, Hardanger and Trondhjem Fiords. Chains of islands—the Lofoten Group, Senjen, Sörö and innumerable others—fringe the coast, and ensure an abundance of safe and sheltered harbours. In the south and south-east the plateau slopes relatively gently to Skagerrak and Christiania Fiord, and here the chief cultivable lowlands are found, and the longest rivers. The valley of the River Glommen affords a route-way northward to Trondhjem, while the Hallingdal is followed by the railway from the capital to Bergen. Long, narrow valley lakes lie round the edge of the plateau, affording reservoirs of water, so that the swift rivers, broken by many waterfalls, are of the greatest value as steady sources of hydro-electric power.

The high plateau, owing to its inclement climate, is a mere waste of bog and moorland transformed into a vast snowfield in winter. The lower mountain slopes, valleys, and plains are clothed with coniferous forest (chiefly pine), or with natural pasture, only a very small proportion being under cultivation.

**Human and Economic Conditions.**—Norwegian farming is of local importance only, the chief crops being *oats*, *rye* and *potatoes*, while a great part of the cultivated land is under grass. As, in addition, there is a considerable area under natural pasture, the rearing of animals is the most important branch of farming. Horned **cattle** (largely dairy cows) number just over a million. They are driven to the mountain pastures (*saeters*) in summer, while, as in Switzerland, hay from the valley meadows and from the mountain slopes is harvested for the necessary winter stall-feeding. The butter and cheese are locally consumed. *Sheep* are about as numerous as cattle, while *goats* (for milk) number 200,000, and *pigs* 215,000. The number of *horses* increased during the War owing to their high value, but the number of goats and pigs decreased. Communication between farms and villages is largely by water, since the majority of settlements are located along the fiords.

The *forests* of Norway cover over 26,000 square miles, and are an important source of wealth, the **timber**, **paper pulp** and **paper** industries yielding an exportable surplus worth about £15 millions—or more than one-third of the total of exports. The logs can be dragged over the snow in winter, floated down to the saw-mills in spring, and cut up by machine saws driven by electrical power provided by the rivers: in fact, the same facilities for the industry are found as in Canada and Sweden, with the addition of an extraordinarily long ice-free coast line, ensuring adequate shipping points.

The *fisheries* of Norway are a second major source of wealth. The most important of these is the cod fishery, carried on round the Lofoten Islands and the Arctic Coast yet farther north. The products, including fresh and dried **cod**, **cod liver oil**, and cod roe are worth over £3 millions; and the industry normally employs 100,000 men and 20,000 boats. The fleet was greatly diminished during the war years, but high prices led to an increase in the value of the output. The **herring** and **sprat** (brisling) fisheries now rival that of cod, the sprats being largely packed and sold both in Norway and Britain as a substitute for sardines. The value of these fisheries

## Norway.

increased fivefold during the War, and in 1917 reached £3½ millions. Inshore and salmon fisheries, with whale fisheries, bring the total value of the harvest of the sea to close on £10 millions, and when to this figure is added the value of the work done in preparing and packing the products for export, refining the oils, and so forth, the importance of the industry to the country is obvious.

The *mineral* resources of Norway are varied, but not so great as those of neighbouring Sweden. The value of the output is now about £2½ millions, of which over half is represented by copper and iron *pyrites*, used in the manufacture of sulphuric acid. There is also a considerable reserve of **iron ore**, although it is of somewhat low grade. The chief workings are in the extreme north, near the shores of Varanger Fiord. *Molybdenum*, *wolfram*, *nickel* and *silver* are also mined on a small scale. Norwegian **granite** from the margins of Christiania Fiord is of some importance. The *smelting* works have an output worth nearly £1 million, copper being most important, followed by nickel and pig-iron. Electro-metallurgy (e.g. manufacture of ferro-silicon compounds) and *electro-chemical* manufactures are becoming increasingly important, the most notable being the fixation of atmospheric nitrogen in the form of **nitrates** of ammonium, calcium, and sodium, the preparation of calcium carbide and ferro-silicon, and the extraction of *salt* from seawater and of aluminium from French bauxite. The well-peopled regions south and south-west of Christiania are most important in respect of these industries. The electricity is generated by water-power, of which Norway has accessible reserves of over nine million horse-power. At present about 1½ millions horse-power is utilised.

**Trade Relations.**—Norway is well placed for Transatlantic trade, and for trade with Britain, western Europe and the Baltic countries. Fish and fish products go chiefly to Germany, Sweden, Great Britain and Russia, timber and paper pulp to Great Britain, manufactured timber to Great Britain and France, ores to Great Britain and Sweden, the products of the chemical and metallurgical industries to Great Britain, France, Germany, Sweden and Denmark. As regards the return trade, the United States is drawn on for cereals and flour, and to a less extent these are imported from Argentina; colonial wares (sugar and coffee chiefly) are also supplied via New York instead of from one of the European entrepôts. Great Britain sends coal, and also commands the trade in imported textiles, Norway taking British goods to the value of £33 millions in 1920. Her part as regards metals, metal manufactures, and machinery is, however, a small one, Sweden and Germany, followed by Denmark (largely re-exports) and the United States, taking precedence in these classes of goods. Hopes are entertained that the newly discovered coal-fields of Spitzbergen will supply Norway cheaply with this mineral.

The principal shipping ports of Norway are Christiania, commanding both Skagerrak (to the North Sea), and Kattegat (to the Baltic), Bergen, on the Atlantic seaboard (410 miles from Newcastle and 3,500 miles from New York), besides the secondary ports of Haugesund and Tonsberg, on the west coast and on Christiania Fiord respectively. There is a very large volume of coasting trade between the numerous minor ports, owing to difficulties of land communication. Narvik, on Ofoten Fiord, lying within the Arctic Circle, is always ice-free, and is hence a shipping point for the iron-ore from Swedish Lapland. Christiania Harbour is kept open



**Nyasaland Protectorate.**

by powerful ice-breakers. The gross tonnage of Norwegian iron and steel vessels in 1921 was over  $2\frac{1}{4}$  millions.

**General Information.**—The unit of currency in Norway is the *krona* of 100 ore, worth 1s.  $1\frac{1}{2}d.$ , or 18 kroner to the pound sterling. The Bank of Norway, which though not entirely State owned, is under strict State control, alone has power to issue notes, which at present are the chief medium of exchange. The British Bank of Northern Commerce does business in Norway.

The metric system of weights and measures is in general use, and is legally established. Mails from London reach Norway in  $2\frac{1}{2}$  days. There are British consuls at Christiania and Bergen, vice-consuls at Trondhjem, Narvik, and some twenty-four minor ports. A Commercial Secretary is attached to the British Legation.

**NOVA SCOTIA**

See **Canada**, p. 123.

**NUBIA**

See **Egypt**, p. 199.

**NYASALAND PROTECTORATE**

**Area and Population.**—Nyasaland is, since 1891, a British Protectorate, administered by a Governor and Commander-in-Chief. The area is 40,000 square miles (nearly a third the size of the United Kingdom), while the native African population numbers nearly  $1\frac{1}{4}$  million, and the European settlers 1,000. During the last few years the revenue has usually exceeded the expenditure, and the foreign trade has greatly increased, averaging  $\pounds\frac{3}{4}$  million to  $\pounds 1$  million, or  $\pounds 1,000$  per head of the European population. Asiatic coolie labour has been introduced. A large proportion of the natives are Christians and have received elementary teaching. The centre of government is Zomba, but the chief settlement is Blantyre.<sup>1</sup>

**Position and General Physical Conditions.**—Nyasaland lies between latitude  $10^{\circ}$  S. and  $17^{\circ}$  S., and extends along the western shore of Lake Nyasa, and southwards towards the Zambesi. The whole country is very elevated, and hence the temperature is not excessive in spite of the low latitude. There are abundant rains in the hotter season (northern winter), while the cooler months are dry. Much of the country is open grassland (savannah), with woods in the valleys and on the mountain slopes. The principal river is the Shiré, which runs from Lake Nyasa to the Zambesi, and is broken in its lower course by falls.

**Human and Economic Conditions.**—The chief cultivation is in the Shiré highlands, and **coffee** was for a long time the staple

<sup>1</sup> For Map see Rhodesia,

## **Nyasaland.**

crop. Recently more attention has been paid to **tobacco**, and this promises to be a leading product as in Rhodesia, the crop amounting to about 5 million lb. **Cotton** growing has also yielded good results, and there are some thousands of acres under **tea**. The Protectorate is self-supporting as regards most food-stuffs, since the climate is suitable for stock-rearing, and many varieties of cereals, fruits and vegetables are grown on a small scale.

**Trade Relations.**—The trade of Nyasaland is almost entirely with the United Kingdom. Communication with the sea is by the railway which runs from Blantyre through Chiromo and Port Herald to Chindio on the Zambesi, in Portuguese-Africa, whence steamers run to Chinde, a small port at the mouth of the river, where there is a "Concession Area" to which goods to and from Nyasaland may be brought duty free. The projected railway from Beira will reach the Zambesi opposite Chindio, and will be of value to Nyasaland. The chief imports are textiles, drapery and apparel, provisions (sugar, groceries, beverages), and hardware. There are good roads, on which motors and cycles can be used.

**General Information.**—The currency consists of British coin, and the Standard Bank of South Africa and the National Bank of South Africa have branches at Blantyre and Zomba. There is telegraph communication with Cape Town.

## **OBOK**

See **French Somaliland**, p. 230.

## **OCEAN ISLANDS**

See **Gilbert Islands**, p. 252.

## **OMAN**

See **Arabia**, p. 19.

## **ORANGE FREE STATE**

See **British South Africa**, p. 105.

## **PACIFIC ISLANDS, JAPANESE**

See **Japanese Pacific Islands**, p. 312.

## **PALESTINE**

See **Syria** p. 450.

## PANAMA

**Area and Population.**—The Republic of Panama was, until 1903, a department of the South American Republic of Colombia. It has an area of 32,380 square miles (i.e. it is about the size of Ireland), and a population of less than half a million, mainly of mixed Spanish, Indian and negro descent. The foreign population includes 55,000 (coloured) British West Indians, and a few thousand Chinese. The capital, Panama, stands on the Pacific coast, and has a population of 64,000, while Colon, lying opposite to it, on the Atlantic coast, has a population of 26,000. The Republic is divided into two parts by the Canal Zone, leased to the United States of America. The foreign trade is only about £3 millions or £6 per head.<sup>1</sup>

**Position and Climate.**—The Republic occupies the isthmus of Panama, a long, narrow belt of country running from west to east, and uniting the two Americas. The situation between 7° and 10° north of the Equator determines that the climate is hot throughout the year (over 70° F. monthly average), and that rain falls abundantly, especially in the early summer months.

**General Physical Conditions.**—A mountain range runs through the isthmus from west to east, but a break occurs between Colon and Panama, and hence this has been the important crossing-point of the isthmus, followed first by Indian trail, then by Spanish mule track, later by rail, and finally by the inter-oceanic Ship Canal. The lowlands of Panama are covered by a dense tropical forest, while there is more open country of the savannah type, with good natural pasture, on the higher ground.

**Human and Economic Conditions.**—More than half the country is unoccupied, and of the lands taken up only a fraction is properly cultivated. **Banana** and **coco-nut** groves cover the largest acreage, and their produce gives the bulk of the exports. Forest products, including **balata** (rubber) and **chicle** (for chewing gum), are the next large items, and there is also a steady export of **hides**, since there are over 200,000 head of cattle on the savannahs. **Coffee** planting is extending, and both cacao and rubber can be successfully grown, but increased capital, labour, and transport facilities are required for the profitable establishment of these plantations.

An American Company owns a railway, used mainly for banana traffic, which runs along the Atlantic coast to Almirante, and is being extended westward to Limon, the port of Costa Rica. It will ultimately be extended eastwards also to the mouth of the River Chagres. The railway from Colon to Panama is owned by the United States Government, and the ports of these cities, Cristobal and Balboa respectively, lie in the Canal Zone, through which, therefore, all international trade must pass.

**Trade Relations.**—The imports and exports of Panama total about £3 millions annually, and the imports are considerably in excess of the exports. This is due to the fact that large sums of money have been invested in improvements that are not immediately remunerative—e.g. roads, railways, harbours—and that the young plantations have not yet

<sup>1</sup> For Map see Guatemala.



## **Panama Canal Zone.**

come to full bearing. The figures for several years previous to 1912 give 82 per cent. imports against 18 per cent. exports, but between 1912 and 1918 the proportion was 66 per cent. imports against 34 per cent. exports. Practically the whole import of manufactured goods and construction materials comes from the United States, the share of the United Kingdom being only one-tenth of the total import trade. The Pacific ports have some direct trade in rice, tea, cottons and silks with Japan and China. The United States take the bulk of the bananas, coco-nuts, gum, rubber and hides that are exported.

**General Information.**—The language spoken in Panama is Spanish. The monetary unit is the gold *balboa*, to which the United States gold dollar is legally equivalent. Immigration is encouraged, and experience in the Canal Zone has shown that with proper sanitary precautions the climate is healthy for Europeans. The "canal money" paid by America for the Canal Zone is partly applied to the establishment of an Agricultural Bank, partly to finance public improvements, while a large proportion has also been invested in the United States. The International Banking Corporation and the Panama Banking Company have offices at Panama. There is a British Consul at Panama, and a Vice-Consul at Colon.

## **PANAMA CANAL ZONE**

**Area and Population.**—The Panama Canal Zone, a strip of territory five miles wide on either side of the Canal Route, is under the control of the United States, and is administered by a Governor. The area of the Zone is about 500 square miles, and the civil population is nearly 22,000. These persons are employees on the Canal and Railroad with their families, of whom about two-thirds are British West Indians. Private individuals and traders are not permitted to settle or acquire land, since the Zone is a military reservation, being strongly fortified.

**Position, Climate and General Physical Conditions.**—The Panama Canal is situated within 10° of the Equator, and has a uniformly hot and wet climate. Yellow fever and malaria were stamped out by sanitary ordinances thoroughly enforced, and the population, both white and coloured (including women and children), is perfectly healthy. The example of Panama has led to the adoption of similar methods elsewhere, with the result that tropical fevers are no longer endemic in Latin-American ports, and the possibilities of white settlement in the tropics are greatly improved. The Panama Isthmus, through which the Canal is cut, runs from west to east, so that the Atlantic entry (Cristobal, port for Colon) is to the north, and slightly to the west, of the Pacific entry (Balboa, for Panama). The summit level of the Canal is 85 ft., necessitating a double stairway of locks, and in places the route lies through deep cuttings, where from time to time landslides have occurred which temporarily closed the Canal. The passage normally occupies seven to eight hours.

**Economic Conditions and General Information.**—The number of vessels passing through the Canal in the year ending June 30th, 1920, was nearly 2,500, carrying over 9 million tons of cargo. American

**Paraguay.**

ships are in the majority, since the Canal affords a waterway between the two American seaboard, and a route from New York to the Far East, while British ships are second in order of importance, as they take advantage of the more direct route not only to Peruvian and Chilean ports, but to the Pacific Islands and New Zealand. Norwegian, French, Chilean, Japanese, Danish, Peruvian and Dutch vessels in the order named follow as frequent users of the Canal. The tolls amount to about £1½ millions, while the cost of the Canal was £75 millions. The American ports of Cristobal and Balboa at either end of the Canal are fitted as coal and oil bunkering stations, while at Balboa there is a large dry dock and repairing station. At Cristobal (on the Atlantic side) there is every facility for obtaining ships' supplies (including fresh meat), and this port does a large entrepôt trade, being a convenient receiving and redistributing centre for the whole of Latin America and the West Indies. A railway conveys passengers and freight across the Isthmus in two hours, the tracks connecting directly with the piers, docks, warehouses, etc., and every effort is made by the American Government, both by the facilities offered, and by a strong publicity campaign, to attract traffic to the Canal. The establishment of a Free Port has been mooted, but so far without result. The Panama Canal route competes with that via Suez for trade in the Far East (Shanghai, Siam), in Eastern Australasia, and in Chile. Other things being equal, it will often be the case that the relative prices of American and British bunker coal will decide the freight rates and the direction which trade will follow. Already over seventy steamship lines have regular sailings through the Canal. The International Banking Corporation has offices at Colon and Panama.



FIG. 104. PANAMA CANAL.

**PAPUA**

See **New Guinea**, p. 349.

**PARAGUAY**

**Area and Population.**—The Republic of Paraguay includes Paraguay proper, with an area of 75,000 square miles (i.e., three-fifths that of Britain), and the Paraguayan Chaco, estimated to cover 100,000 square miles, over which there is a dispute as to ownership with Bolivia.

The civilised population, mainly in Paraguay proper, is estimated at one million, while there are about 50,000 uncivilised Indians in the Chaco. The Paraguayans are mainly of Indian blood, with a strong Spanish element, and a less important negro strain, the last being derived from the old slave population of neighbouring Brazil. Of the foreign born population—num-

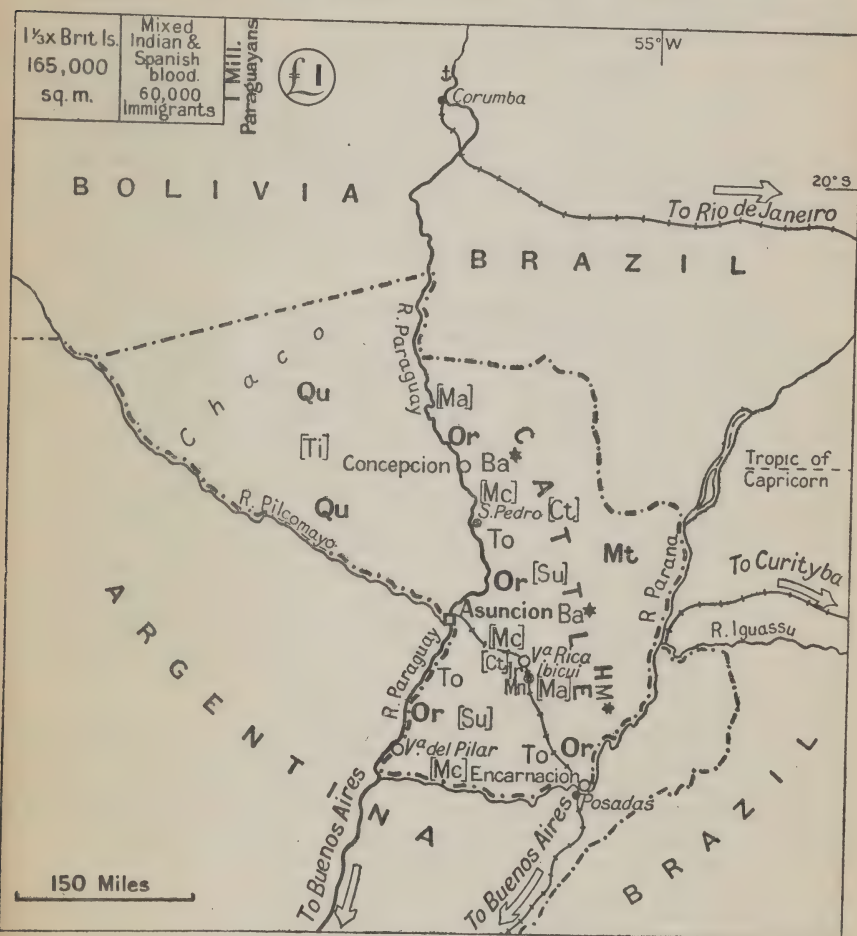


FIG. 105.—PARAGUAY.

bering about 60,000—half are Argentines, a quarter are Italians, and there are several thousand Spaniards and Germans. There is only one large city, Asuncion, the capital, river-port, and entrepôt of Paraguay, with 100,000 inhabitants. The foreign trade is small—about £4 per head of population.

**Position and Climate.**—Paraguay is one of the inland Republics of South America, its territory marching with Bolivia, Brazil and Argentina. Paraguay proper lies in the fork between the rivers Paraguay and Alto



## Paraguay.

Parana, while the Chaco lies on the west bank of the Paraguay, in the fork between that river and the Pilcomayo. The whole country is comprised between latitudes  $21^{\circ}$  and  $27^{\circ}$ , the Tropic of Capricorn running through it. Hence it has a sub-tropical climate, with hot summers and warm winters. In Paraguay proper there is a moderate rainfall, well distributed through the year, while in the Chaco the rainfall is limited to the summer months, and the winter is a season of drought.

**General Physical Conditions.**—Between the broad, low-lying valleys of the Paraguay and Parana rivers, the ground rises gradually to a central watershed, which is nowhere more than 2,800 ft. above the sea. This high, rolling country is a southern spur of the great plateau of Brazil. It is covered with rich natural pasture, and open woodlands, while the lower ground is clothed with evergreen forests. The Chaco country is a great plain, rising gradually towards the west. It is for the most part an open grassland, lightly timbered with palm trees, but there are also woods of the hard, drought-resisting *quebracho*.

**Human and Economic Conditions.**—The climate of Paraguay is very favourable to agriculture, but only a very small acreage is under cultivation, and the methods employed are primitive. Development naturally took place first of all in the neighbourhood of the great navigable rivers, of which the Paraguay is available for steamer traffic throughout and beyond the boundaries of the Republic, and the Parana for steamers as far as Posados, and for smaller craft far into Brazil, although it is broken at intervals by falls. The one railway runs diagonally from Asuncion, at the junction of the Pilcomayo and the Paraguay, to Encarnacion on the Parana, where a train ferry is available to Posadas, the terminus of an Argentine railway from Buenos Aires. In addition to Asuncion, Concepcion (15,000), San Pedro (8,700) and Villa del Pilar (10,000) are centres of population on the Paraguay River, while Villarica (26,000) on the railway, is the only considerable town lying at a distance from the waterways. The figures are estimates for the population of the towns together with the surrounding district for which they are centres.

*Maize, manioc, beans, sweet potatoes* and some *rice* are the staple crops grown for local use. The greater part of the **tobacco** crop is exported, the annual surplus of six or seven thousand tons being purchased before the War by Germany. Citrus fruits grow to perfection, especially **oranges**, and in spite of an enormous home consumption, the annual export has reached 14 million dozens, sent mainly to Argentina and Uruguay. Paraguay is the main source of supply of *Petit grain oil* from the leaves of a sour orange. The export of *bananas* has also begun. The climate and soil conditions are suited to a large scale production of *sugar, cotton* and *ground nuts*. Such developments must, however, await the improvement of labour supply, roads and railways.

At present, stock-raising is the main industry to which capital is applied in Paraguay, millions of acres of land being devoted to grazing, mainly of horned *cattle*, of which there are over 5 millions. The native breeds are gradually being improved by crossing with pedigree British stock, and also by the introduction of Indian zebu blood into the herds, the resulting cross having been found in tropical Brazil to be peculiarly suited to a hot climate. The *meat* packing and curing industry is encouraged by the Government,

## Persia.

and animal products form an important export, while live steers are also travelled south to be slaughtered in Argentina and Uruguay. Three new meat-packing establishments, belonging to United States companies, have recently been completed in Asuncion.

The virgin evergreen forests of eastern Paraguay yield large supplies of *yerba maté* (Paraguay tea), which is one of the staple exports; the Chaco country to the west furnishes **quebracho** extract for tanning. *Timber* (including cedar and quebracho) is cut for local use, and there is some export to the treeless pampa of Argentina.

Large *iron* and *manganese* deposits at Ibicui await development, when means of transport are improved.

**Trade Relations.**—At present all the trade of Paraguay goes southward, either on river steamer, or by the through-railway from Asuncion to Buenos Aires and the Plate estuary. Consequently the bulk of the exports go to Argentina. A line running westward from Villarica to join the Brazilian railway system at Curitiba would bring the Republic several days nearer to Europe.

The total foreign trade is little more than £4 millions annually—about £2 millions each way. Nearly three-quarters of the Paraguayan products are purchased by Argentina, while the remaining quarter is divided between Spain, the United States and Uruguay, the United Kingdom taking less than 2 per cent. The imports include the foodstuffs of temperate climates (e.g., wheat products) largely supplied by Argentina, and all kinds of manufactured goods for domestic use, such as clothing, textile fabrics, hardware and furniture. The main supplies of manufactures are from Britain, which in 1916 had 38 per cent. of the import trade. The United States had 12 per cent. and both Spain and Italy sent goods to Paraguay. Previously to the War, Germany supplied more than a quarter of the total imports, and took about 22 per cent. of the exports.

Vessels drawing 9 ft. can reach Asuncion, except at midsummer, i.e., January and February. An international train runs through to Buenos Aires.

**General Information.**—A paper currency, subject to a fluctuating exchange, is in use in Paraguay. The Banco Mercantil del Paraguay has an agency in London. The metric system of weights and measures is employed side by side with the old Spanish system (*quintal* = 101 lb). The language spoken is Spanish, and the established religion is Roman Catholic. The population is largely illiterate. There is a British Consul at Asuncion.

## PATAGONIA

See **Argentine Republic**, p. 21.

## PERSIA

**Area and Population.**—The Kingdom of Persia (or Iran) was under the absolute rule of the Shah until 1906, when a National Council was established. At present the Council is without any actual power, and the



**Persia.**

government is in the hands of a Cabinet. The area of the country is about 628,000 square miles, i.e. it is three times as large as France, but the population is estimated at between  $9\frac{1}{2}$  and 15 millions only, of whom 2 millions are pastoral nomads. The foreign trade is under £2 a head, taking the higher estimate of the population, the figure for 1918 and 1919 being £27 millions, as against £20 millions in 1914. The increase is apparent only, since during the war period the unit of value, the silver *kran*, appreciated from 54 to

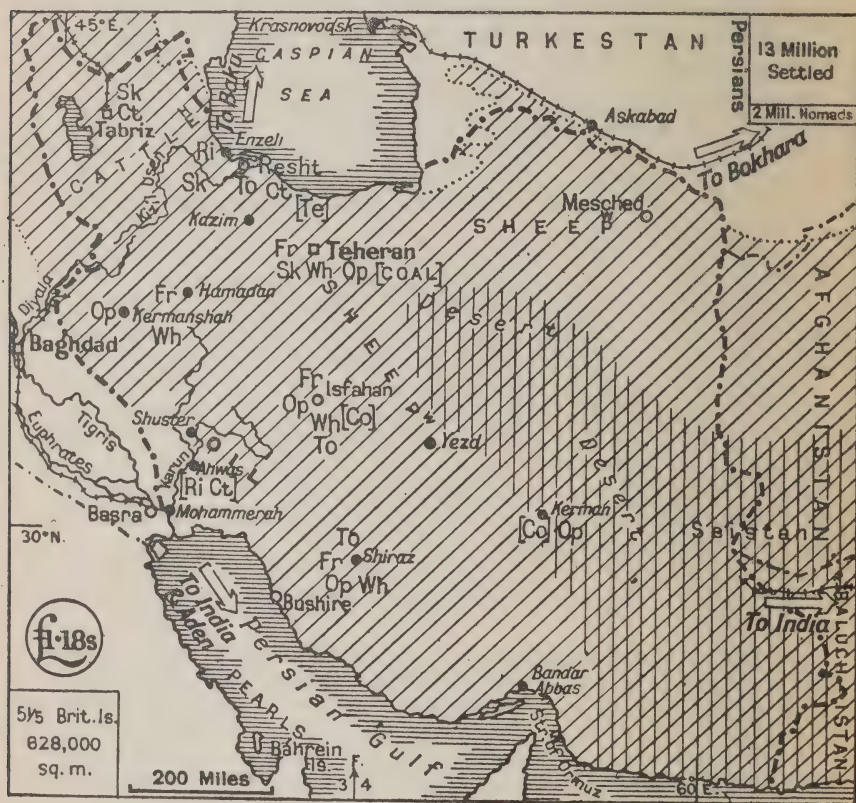


FIG. 106.—PERSIA.

the pound sterling in 1914 to 26 to the pound in 1918. The figures, however, are far from representing the potential trade of the country, which under the influence of the priestly class has hitherto kept apart from Western influences and Western commercial life. There are only 1,200 European residents in Persia, of whom half are British subjects. Yet very decided steps towards Westernization have been taken by the governing classes, for European officials are engaged to direct the Customs, Post Office, Police, and similar departments.

Previous to the War the predominating foreign influence in Persia was Russian, the sphere defined as British being a largely desert tract adjacent



## **Persia.**

to Baluchistan and the Arabian Sea. The exigencies of war followed by the Anglo-Persian agreement, have now given Britain a much more important place in trade and politics, and Persia has become a market worth consideration. The people of the towns are racially akin to the various south Mediterranean peoples, and the wealthy middle and upper classes are accustomed to a high degree of luxury and refinement in their homes and persons.

The most populous cities are in the north, near the Russian frontier. They are Teheran, the capital, with 250,000 inhabitants, and Tabriz, the chief city of the north-western province of Azerbaijan, with 200,000. Six other towns have from 50,000 to 80,000 inhabitants.

**Position and Climate.**—Persia lies between the Caspian Sea to the north, and the Persian Gulf and Gulf of Oman to the south. It forms part of the high plateau stretching through Asia Minor eastwards to the border of India. Situated between latitudes  $40^{\circ}$  and  $25^{\circ}$  N., it has a sub-tropical climate, which in many respects resembles that of Spain and Algeria. The summer days are very hot, although the nights are cool, and the winters are warm, except in the mountains north-west and north, where there is a cold season with frost and snow. The rainy season is in winter, as in the Mediterranean lands, and only in the north and north-west is the rain at all plentiful. Elsewhere there is a moderate fall on the higher ground, while in the sheltered valleys and on the plains there is a marked deficiency, so that the centre and east of the country are largely desert.

**General Physical Conditions.**—The north-western province of Azerbaijan includes part of the mountain knot of Armenia, from which the ranges diverge that enclose the plateau of Iran. Eastward runs the lofty Elburz chain, which isolates the Caspian seaboard, save where it is cut through by a plateau river, the Kizil Usen. These mountains are prolonged eastwards by the lower bordering ranges of Khorassan, which separate Persia from Turkestan, and they finally merge into the mountains of Afghanistan.

The second series of ranges from Azerbaijan run south-eastwards, and take the form of parallel ridges, rising steeply from the plains of Mesopotamia, and from the deep trough in which lie the waters of the Persian Gulf. Between these ridges there are well-watered valleys and elevated plains, such as the fertile plain of Isfahan. Flowing eastward from the plateau border are two rivers of importance: the Diyala, which opens a valley route directly down from Persia to Bagdad, and the Karun, which crosses a flood plain to join the Shat-el-Arab. The plain of the Karun (Arabistan), though politically part of Persia, is geographically part of Mesopotamia, and has the same intensely hot and dry climate, and the same fertility when irrigated.

The extreme south of Persia, forming part of the Makran, is likewise bordered by parallel mountain ranges. Thus the only open frontier of the country is that towards the dry basins of Baluchistan and Afghanistan. Shared between the three political units is the depression known as the Seistan—a region which in ancient days was irrigated and well peopled, and yielded great harvests of grain.

The wet northern slopes of the Elburz Mountains are forested with oak, beech, walnut and plane, and in the north-western mountains are the remains of once extensive forests. Elsewhere the bordering ranges are thinly wooded with evergreen oak, wild olive and wild mulberry, or clothed merely with scrub. The interior high plains are steppe-like in character, and have many

thorny and prickly shrubs and plants. Towards the east, where the dry and often cold winds from Turkestan sweep across the plains, are the Salt Desert and the Desert of Lut, which are almost bare of vegetation.

**Human and Economic Conditions.**— Save along the margin of the Caspian Sea, and in the north-west, the agriculture of Persia has always been dependent upon irrigation, water being led by canals or aqueducts from the mountain streams, or raised by water-wheels from wells. Hence, the further opening up of the country involves the expenditure of capital upon irrigation schemes by which large and fertile areas, e.g. on the high plain of Isfahan (5,000 ft. elevation) and on the low plain of Arabistan, might be brought under permanent cultivation. The occurrence of winter rains and hot dry summers marks out the country as one pre-eminently suited, like California, to **fruit** culture: the grape, peach, apricot, pomegranate, fig, almond and pistachio nut all grow to perfection, and the soft fruits can be sun-dried for export. In addition mulberry trees form the basis of a **silk** industry, and olives and melons flourish, both of which might become articles of commerce.

The staple grains of winter rainfall regions, namely **wheat** and **barley**, are harvested in spring, leaving the fields free for summer irrigation crops. The prolonged hot season allows **rice** and **cotton** to be grown where sufficient water can be obtained, while *opium*, *tobacco* and *linseed* are valuable, especially the first named, because of its portability in a land of costly caravan transport. The tobacco of the Caspian provinces is similar to Turkish tobacco, and might be marketed in Europe. In the same fertile region, near Resht, *tea* plantations have proved successful, and might be greatly extended.

**Dates** grow in the Shat-el-Arab region and in the Makran, i.e. in the most sultry parts of the country; *lucerne* (alfalfa), the fodder crop best suited to dry soils, is also planted, and the acreage might be increased side by side with a development of the existing pastoral industries.

The great natural grazing lands and mountain pastures beyond the limits of the irrigated oases are devoted to stock-raising, carried on by nomad tribes. Sheep and goats are reared for their **wool**, which is sold in the cities and there woven into *rugs*, *carpets*, and shawls of high value. Camels and donkeys are numerous, and serve as pack and draught animals, while a few horses are bred for riding purposes. Cattle are most important in the north-west and north, where the wetter climate makes richer pasture and cheaper fodder.

The *mineral* wealth of Persia is probably very considerable, but its development must await improved transport facilities and the inflow of capital. The chief deposits are *copper*, near Isfahan and Kerman, *coal* along the inner margin of the Elburz Mountains, and *iron*, all of which are worked for local use. The only mineral exploited on commercial lines at present is **oil**. The fields occur in the south-western ranges, and are the property of the Anglo-Persian Oil Company, in which the British Government has a controlling interest. A pipe line runs for 100 miles to the refineries at Abadan, on the Shat-el-Arab, near the port of Mohammerah. Only part of the field is worked, and there is also an unworked field of promise in the north-west, near the Caspian Sea, so that the total resources may exceed those of Mexico. The output was over 12 million barrels in 1920, and oil heads the list of exports.

The native *industries* include *hand-weaving* of textiles, of which carpets



## Persia.

and rugs (chiefly from *Asterabad*, Kerman, Shiraz and Tabriz) are the most important, followed by silks, cottons, and woollens. One or more of these is practised in all the considerable towns. The flocks and herds also supply material for a *leather* industry—saddlery, harness, boots and shoes—centred largely at Hamadan, on the pilgrim route from Teheran to Baghdad. Tobacco and opium are also manufactured.

**Trade Relations.**—Before the War, two-thirds of Persia's trade was with Russia, and less than a quarter with the British Empire. Hence the routes and ports of the north were the best developed. The quickest route from Europe is via the Batum-Baku railway and thence by water to Enzeli, the out-port of Resht, whence there are metalled roads via Kazvin to Teheran and Hamadan. An alternative is the railway from Batum to Tiflis, and thence to Tabriz, when the road must be taken. The noted wool province of Khorassan can be reached via the Turkestan railway. From the railhead on the frontier at Askabad a good road runs to the city of Meshed.

Raw cotton, rice and fruit were the main staples going to Russia, while cottons and sugar were received in return, besides some metal and leather goods. The import trade was, however, less exclusively in Russian hands than the exports, since India could readily supply cottons and tea, while Great Britain sent metal goods and machinery, besides woollens.

Failing the Russian beet-sugar, cane-sugar now comes from the refineries of Hong-Kong and Egypt, the import value being over £2 millions annually. Japanese goods are also entering Persia via India. There is a good demand for all classes of wearing apparel and drapery, besides iron goods, machinery, motor-cars, leather goods (including strong, cheap boots for pilgrims), domestic ironmongery and luxury articles.

There are five southern routes into Persia of varying usefulness. From Baghdad a railway reaches the frontier, whence a metalled road leads to Kermanshah, and from this centre there are caravan routes to Azerbaijan and to Teheran. From Mohammerah on the Shat-el-Arab the Karun is open to foreign vessels as far as Ahwaz, whence there is a caravan route to Isfahan. The latter town is also reached from Bushire on the Persian Gulf via Shiraz. From Bandar Abbas, a port farther east on the Gulf, a similar road runs to Kerman, the chief eastern plateau centre, and this town is also served by a caravan route from the Baluchistan frontier, which is now the railhead of the Indian Quetta-Nushki line.

Transport by pack animals is both slow and costly, hence any increase in production of such bulky staples as grain, cotton and fine wool must go hand in hand with increased facilities for motor and rail transport. The local oil supply points to a future for the motor truck.

**General Information.**—The Persians of the towns and villages are Mohammedans of the Shiah sect, while the nomads (Arabs, Turks, Kurds) are of the Sunni sect. There are, besides, some tens of thousands of Armenian and Nestorian Christians and of Jews, who monopolise much of the trade. The monetary unit is the *kran*, a silver coin worth in 1920 £ $\frac{1}{4}$  sterling, or in terms of the rupee 275 krans = Rs. 100. The native weights and measures are unstandardized. The principal bank is the Imperial Bank of Persia, with a London office, and there is also a Russian bank at Teheran. French is widely spoken among the educated classes.

Mail routes are now via Aden or Bombay, taking 4 or 5 weeks, and there



is telegraphic communication with India. There are British Consul-Generals at Teheran, Bushire, Meshed and Isfahan, a Consul at Tabriz, and Consular representatives at all the leading ports and caravan centres.

## PERU

**Area and Population.**—The Republic of Peru has an area of rather more than 720,000 square miles, i.e. it is almost six times as large as the British Isles. Its population is not exactly known, but it is under 5 millions. Of this number, about half are civilised Indians, a quarter are of mixed blood, and fewer than three-quarters of a million are of pure European (Spanish) descent. The capital city, Lima, has between 140,000 and 150,000 inhabitants, while its port Callao, eight miles away, has 36,000. There is one other considerable town, Arequipa, with a population of 35,000 to 40,000. The foreign trade has risen from about £3 a head in 1913 to about £8 in 1919, the exports being considerably in excess of the imports. The total in 1919 was £39 millions.

**Position and Climate.**—Peru is one of the Andean States of South America, and lies wholly within the tropics, no part being more than 17° from the Equator. It is in the belt of the south-east trade winds, and this fact, combined with its varying elevation, gives it several distinct climates. The eastern (interior) slopes of the Andes, and the plains at their base, are always very hot and have drenching rains—they form the *Montaña* region. In the *Sierra*, or mountain zone, the sun is intensely hot owing to the clear air, but the great height (6,000 to 12,000 ft., with peaks rising to 19,000 ft.) makes the shade temperatures low, while it is often frosty at night. In this region the rains fall chiefly in summer—November, December, and January—while the winter months (our northern summer) are dry. The third region is the Pacific Coast Belt. Here, since the winds are parallel to, or blow away from the shore, there is practically no rain, and sea mists alone moisten the soil. The heat, although great, is not excessive, for a cool ocean current is drifted along shore by the wind and slightly cools the air, while its offshore movement in the north of the Republic causes an upwelling of colder water, which has a similar effect.

Peru marches with Ecuador, Brazil, Bolivia, and Chile, with all of which States there have been boundary disputes. Chile remains in occupation of the disputed Peruvian provinces of Tacna and Arica.

**General Physical Conditions.**—The coast region is an arid desert, except where the numerous short rivers from the Andes moisten the soil and make fertile oases. The mountain zone or *Sierra* is divided into separate chains (the coastal, central, and eastern Cordillera), and innumerable spurs, by the head streams of the Amazon, which flow for some hundreds of miles in a north-westerly direction (i.e. parallel to the coast). Subsequently they cut through the eastern Cordillera and, by a series of narrows, rapids and gorges, drop down to the Amazonian Plain, where they become navigable. The three main rivers of this character are the Marañon, Huallaga, and Ucayali. Together with their minor tributaries, they have cut deep ravines into the Sierra, which are warm and sheltered, and hence are the chief agricultural centres. In the extreme south, the character of the

## Peru.

Sierra changes: in place of the deep ravines there is a high cool plateau, buttressed between the eastern and coast Cordillera. This is called the



FIG. 107.—PERU.

*puna*. It is a region of inland drainage, the waters gathering in Lake Titicaca, a great navigable sheet of water nearly as large as Wales, of which part is in Bolivia.

In the ravines, and on the eastern slopes of the Andes, there are dense forests, which extend down to the Amazonian Plain, the trees varying from tropical to temperate types according to the height above sea-level. In the high intermont valleys, on the plateau, and on the loftier mountain slopes there are no trees, but there is abundance of natural pasture, grazed by flocks of llamas, alpacas and sheep, and by the wild vicuña.

**Human and Economic Conditions.**—The rainless coast zone is the most important agricultural region, water being supplied by artificial irrigation. The staple crops are **sugar** and **cotton**, nine-tenths of the former being exported, while over 120,000 bales of the latter were exported in 1919. The most important sugar plantations are behind the ports of Pacasmayo, Salaverry and Chimbote, and in the province of Lima. Some fifty miles south of Lima city lies the fertile valley of Cañete, where the British Sugar Co. has its plantations and refinery. The latter is the largest of some fifty sugar centrals in the coast zone, the town of Trujillo (for which Salaverry is the out-port) being especially important. The canes yield very heavily, and the output is over a quarter of a million tons a year.

The cotton plant is native to Peru, and the local varieties are those mainly planted. Egyptian cotton (grown under very similar conditions) is, however, found to do exceedingly well, and "sea island" cotton moderately so. The chief cotton districts are found in the provinces of Piura, Lima and Ica, and are connected by rail with the ports of Payta, Callao and Pisco respectively. The sugar plantations likewise have rail connection with the nearest coast port. A third crop of the irrigated lands is *rice*; the quality is excellent, but the quantity (about 50,000 tons) is usually insufficient for local requirements. With additional capital for irrigation works, and additional labour for the plantations, this region is capable of very much greater production. Chinese coolies are excluded by law, but already several thousands of Japanese are to be found at work.

In the Sierra or mountain zone, mining is the principal industry, but whereas the leading mineral was formerly *silver*, the first place is now held by **copper**, of which the output (44,000 tons in 1918) is worth about £5 millions annually. *Gold* takes only the fourth place, with a value of £ $\frac{1}{4}$  million, while *vanadium*, *tungsten* and *borates* together make a total of another £ $\frac{1}{2}$  million. The chief mining towns in order from north to south are Cajamarca (population 10,000), connected by rail with Pacasmayo, Huaras (population 10,000), on the Chimbote railway, Cerro de Pasco (9,000), on the Central Railway from Lima via Oroya, Ayacucho (population 14,000), towards which the southern branch line from Oroya is being extended, and Arequipa, on the Mollendo-Puno line.

Cerro de Pasco is the headquarters of an American Mining Company, which has large copper smelting works there. The company also has vanadium mines, and a coal mine, and is installing a large hydro-electric plant to supply the power they require.

Although there is coal in the Andes, the more accessible fields are in the coast belt, notably behind Payta, Salaverry, Chimbote and Pisco, yet these are scarcely touched and five-sixths of the total output of 300,000 to 350,000 tons is from the Cerro de Pasco Company's workings. There are also very important **oil**-fields in the extreme north, the oil being piped to the ports of Talara and Lobitos, just to the north of Payta. The output has steadily



## Peru.

increased and is valued at over £2 millions annually (2½ million barrels in 1920). Three-fourths is available for export. Large areas of oil-land still await development.

Round about the mining towns of the *Sierra*, agriculture is carried on to supply local needs, the *potato* being a staple food crop up to 13,000 ft., and *maize* up to 11,000 ft. Both these plants are native to Peru. Latterly considerable attention has been paid to *wheat*. The *Sierra* is also the chief pastoral region, the Indian shepherds leading their flocks of llamas, *alpacas* and sheep to the higher or lower pastures according to the season. The male llamas are used as beasts of burden, as are donkeys and mules. Neither horses nor cattle are suited to the rarefied air at these great elevations. Arequipa is an important market for wool, especially for alpaca, the export of which is about £½ million annually. This town receives supplies also from Bolivia, with which it has rail and steamer connection via the Arequipa-Puno railway and Lake Titicaca.

A branch of the same railway runs northward to Cuzco (population 15,000), a city which in addition to mining has important agricultural activities. Cuzco is situated in the upper valley of the Ucayali, in one of the typical deep ravines of the eastern part of the *Sierra*. In these ravines (notably in the Perene valley near Cerro de Pasco) plantations of coffee, cacao and coca (for cocaine) are very successful, and the output of these products is increasing. In addition the cultivators grow tobacco, vines, olives, fruits, maize and so forth for local use, bestowing but little care upon them. The *tobacco* of some regions, notably north Peru, is of very good quality, and this is a crop that merits attention. Labour and transport facilities are all that is needed for the rapid extension of this sub-tropical agriculture, since there is an enormous acreage of fertile, healthy country awaiting colonisation. At present both manufactured and unmanufactured tobacco is imported in large quantities.

In the *Montaña* region beyond the Andes, the same difficulties are even more acute. The rivers are the main lines of communication, and the entrepôt for the whole area is Iquitos, the port on the Amazon standing below the confluence of the Marañón, Huallaga and Ucayali rivers. Iquitos is reached by ocean-going steamers from the United States and Europe, and has a population of 15,000 to 20,000, according to the season. Its chief export is **rubber**, of which both hevea (Para) and the inferior caucho are collected in the Peruvian forests. A second product of growing importance is *ivory nuts*. Iquitos is in wireless communication with Lima, but until the Oroya railway is extended down to the *Montaña* any traffic between the two towns is most easily carried on via the mouth of the Amazon and the Panama Canal.

The manufactures of Peru include the making of cotton textiles at Lima, Arequipa and Ica, the annual output being 24,000,000 yards, and a much smaller woollen industry at Cuzco, Lima and Arequipa. Apart from this there are sugar and oil refineries, smelting works, rice mills, cocaine and tobacco factories (the last a Government monopoly): that is to say, industry is entirely concerned with the preparation for market of local raw materials. Panama hats are manufactured on a small scale in the north. The guano production from the desert islands off the Pacific coast, once a great source of revenue to Peru, is now inconsiderable (55,000 tons in 1919-20).

**Trade Relations.**—Copper and sugar stand in the forefront of

## **Philippine Islands.**

Peruvian exports, followed by cotton, wool and petroleum, all of which are commodities in great demand in the United Kingdom. Actually, however, this country yields the first place to the United States as a purchaser of Peruvian goods, while Chile, with a market for sugar and oil, comes third. All kinds of manufactured goods are in demand, including textiles, railway plant, and machinery for the mines and for the large and small industrial establishments.

More than half the imports come from the United States, the value of goods from the United Kingdom being only a quarter as great, and Chile again taking the third place. Previously to the War, Germany took a very important place both in the import and export trade of Peru. The difficulties of communication with Europe led to Peru making purchases in Eastern markets, and the figures for 1918 show 5 per cent. of imports coming from British India, 4 per cent. from Hong-Kong, and 3 per cent. from Japan.

Callao, on a sheltered bay, with good wharves, is the leading port by which goods enter Peru (70 per cent. of total), and serves as a distributing centre both for the Sierra, by the Central Railway system, and for the coast, by coasting steamers. Mollendo, with 10 per cent. of the import trade, has the second place; like Callao it is the starting point of a railway into the Sierra, but the two systems are at present isolated. Payta, with the best natural harbour in Peru, has the third place, and Salaverry (for Trujillo), the fourth. The export trade is more evenly distributed, Callao having only 36 per cent. of the total. Mollendo again has the second place, followed by Salaverry, Payta, Talara (for oil) and Pisco in the order named.

The railways of Peru, together with the Titicaca navigation and the Guaqui-La Paz railway of Bolivia, are in the hands of a British Company, the Peruvian Corporation, which also holds a large acreage of agricultural land in the eastern valleys, and is promoting their colonisation.

Callao has a good harbour, and is in frequent communication with Panama and (bi-weekly) with Liverpool. At other ports goods must be lightered.

**General Information.**—The language spoken in Peru is Spanish. The State religion is Roman Catholic. There is a gold standard, and the national gold coin is the *libra*, equivalent to the pound sterling. The metric system of weights and measures is in use, except for the customs tariff, for which the old Spanish units are retained. The Banca del Peru y Londres is the British bank of Peru; the Anglo-South American Bank and the National City Bank of New York recently opened branches, and there are also Italian and German banks at Lima. Mails reach Lima via New York in three weeks. There is a British Consul at Callao and at Iquitos, and Vice-Consuls at Lima, Arequipa, Mollendo, Salaverry and Paita. A Commercial Secretary is attached to the British Legation.

## **PHILIPPINE ISLANDS**

**Area and Population.**—The Philippine Islands were ceded to the United States by Spain in 1899, and have had since 1916 an autonomous government, at the head of which is a Governor-General, appointed by the



## Philippine Islands.

American President. The area of the group is 114,500 square miles (rather larger than Italy), and the population is about  $10\frac{1}{2}$  millions. Nearly 90 per cent. of the people are Christians, and have received an elementary education, while many thousands pass through the secondary schools and enter the large State-supported University at Manila. Hence the Filipinos are fully qualified to occupy the highest Government positions, and to enter the learned professions. There are still some hundreds of thousands of uncivilised pagans, both Filipinos and pygmy negroes, and there is a Mohammedan population in the extreme south of the group, Islam being a widespread religion in the neighbouring Indies. The Filipinos are of the Malay race.

The capital city and chief port, Manila (on the island of Luzon), has a population of over a quarter of a million, including about half the 11,000 Americans and Europeans resident in the islands, and also some 17,000 Chinese. The latter people are established as shop-keepers and traders in all the towns. Four minor seaports, Cebu, Iloilo, Laoag and Albay, scattered through the group, have each between 40,000 and 50,000 people. The summer capital for Europeans is at Baguio, in the mountains. The per capita trade is about £5, i.e. less than that of Japan, but much greater than that of India.

### Position, Climate and General Physical Conditions.

—The Philippines stretch between Formosa and the East Indies, and look westwards to the China Sea, eastwards to the Pacific Ocean. Lying between latitudes  $5^{\circ}$  N. and  $19^{\circ}$  N. (the latitude of southern India), the islands have a tropical climate, dominated by the monsoons, which blow alternately from the south-west (summer) and from the north-east (winter), and thus bring rains from the west and from the east at opposite seasons. The islands being mountainous, those areas sheltered from the winds are relatively dry, and droughts are not unknown, but floods from excessive rain are of more frequent occurrence. Still more disastrous are the typhoons which from time to time travel across the China Seas.

The mountain slopes are covered with forests of palms, wild bananas, bamboos, rattans, and various tropical timber trees. In some localities there is a more open savannah country, clothed with rich grasses. The soils are very fertile, and largely of volcanic origin.



FIG. 108.—PHILIPPINE ISLANDS.



## **Philippine Islands.**

**Human and Economic Conditions.**—The Filipino farmers are mostly smallholders, and their methods of cultivation are open to great improvement, the yield per acre of the staple crops being much lower than in such countries as Japan and Java. **Rice** is the principal food-stuff of the people, and covers the largest acreage, but the home supply has to be supplemented by an import from continental Asia. From the standpoint of foreign trade, Manila **hemp**, the best of common rope materials, is the most important commodity produced, since its value is one quarter that of the total export trade. The plant yielding it is a member of the banana family, and so far has not been grown successfully elsewhere. The chief plantations are in the eastern margins of the group, and the fibre is inspected and graded by Government, Manila being the market. Sisal hemp is also grown.

Second in importance to the hemp fields are the **coco-nut** groves, which are very numerous on these islands, with their enormous length of coastline. The actual export of copra has diminished, for owing to the difficulties of shipping a number of large modern factories have recently been erected at Manila, where the *coco-nut oil* is extracted and exported as such. In 1918 the output was worth nearly £7 millions. Trees number 80 millions.

The third money crop is **sugar**, which suffers rather from being produced on small farms instead of on the more economical large plantations. There are now large central crushing mills, but in the absence of local refineries the raw product is exported, while refined sugar has to be imported. Owing to abnormal prices sugar headed the export list in 1920 with a value of £10 millions.

**Tobacco** of good quality is grown in certain fertile valleys in northern Luzon, and is exported both in the leaf and in the form of the well-known Manila cigars. The value of the product nearly equals that of sugar. Other crops for which the climate is suitable are maize, coffee, cotton, and rubber. Fruits also grown in abundance, and *bananas* are marketed to a certain extent.

The *lumber* resources (hardwoods) are considerable, although the export is so far small.

Horned cattle, including the carabao, are used for drought purposes, and the existence of rich grasslands suggests that the rearing of *cattle* for meat could be made successful. The native breeds of pigs, poultry and ponies might also be improved, and made more valuable by increased care. In spite of their climatic advantages, the islands are not self-supporting as regards either animal or vegetable food-stuffs.

The Philippines are rich in *minerals*, but only **gold** is mined on a serious scale, the annual output being worth about £300,000. *Petroleum* will probably be exploited in the near future in the Bondoc Peninsula (S.E. Luzon), and some *lead* and *manganese* are already worked.

The most valuable manufacture is that of cigars, followed by embroideries, hats and cordage.

**Trade Relations.**—The total trade was £49 millions in 1918, of which 60 per cent. was export trade. Two-thirds of the outgoing and nearly as much of the ingoing trade in the same year was with the United States, since there are no protective tariffs between the two countries, but the United Kingdom is a considerable purchaser of hemp, copra and coco-nut oil, and has the second place on the export list. The same products

## Poland.

also reach Britain via the entrepôts of Hong-Kong and Singapore. Sugar (averaging 300,000 tons) is divided between the refineries of Hong-Kong, Japan and the States; and the bulk of the tobacco and cigars is marketed in the East.

Britain plays only a subordinate part in the import trade, although the leading goods in demand are cottons (30 per cent. of total), and manufactures of iron and steel, both British staples. In the former class Japanese competition is keen, and this country is the second largest importer, supplying also silk goods and refined sugar. From the United States come galvanised sheets, wire, tools, cutlery, machinery, textiles, wheat, flour, canned goods (fish, meat and milk), leather goods, automobiles, paper, and so forth. French Indo-China sends rice and fish, while from China come pork and beef, and from Australia meat and dairy products. Imports increased in 1919, with the increase of shipping facilities, while in 1920 they nearly equalled the exports, and in 1921 owing to the stagnation of the produce markets, they were in excess.

Manila stands on a sheltered bay and has excellent harbour facilities. American effort has been directed towards making it an entrepôt for the Far East, but its situation is decidedly inferior to that of Hong-Kong and Singapore, although it might become a centre for American trade with the East Indies and Indo-China when this is developed. Railways (nearly 800 miles) and roadways (nearly 6,000 miles) have been constructed since the American occupation, and every encouragement is given to the peasantry to take up undeveloped land, of which there are large tracts, especially in Mindanao. Motor trucks are widely used.

**General Information.**—The educated classes speak English and Spanish. The coinage, weights and measures are based on those of the United States, the metric system being in official use. Traders also use the *picul* of 140 lbs., and the *quintal* of 102 lbs. The value of the *peso* is fixed at half a (U.S.) dollar, but during the financial crisis of 1921 parity was not maintained. The Government bankers are the Philippine National Bank, and besides native banks there are branches of the International Banking Corporation, the Hong-Kong and Shanghai Banking Corporation, the Chartered Bank of India, Australia and China, and the Yokohama Specie Bank. Mails reach Manila in about five weeks. There is a British Consul-General at Manila, and Vice-Consuls at Iloilo (Panay Island) and Cebu (Cebu Island).

## PLEASANT ISLAND OR NAURU

See **Nauru or Pleasant Island**, p. 344.

## POLAND

**Area and Population.**—The boundaries of the Republic of Poland are not yet finally determined, but the area may be estimated at between 140,000 and 150,000 square miles, and the population at about 30 millions. Of these about 18 millions are Poles, about  $1\frac{1}{2}$  millions are

There are also nearly 3 million Russian and Polish Jews, who live as a rule in the large towns. No statistics are available for estimating the value of the external trade of the areas comprising the Republic, but taking



FIG. 109.—POLAND.

it at £6 per head before the War, this would mean roughly £90 millions in each direction, or a much higher figure at the present value of money. Russian Poland was one of the best-developed parts of that Empire ; German Poland, although mainly an agricultural region, was, like the rest of Germany, very thoroughly and scientifically exploited ; while Austrian Poland was on the whole one of the backward portions of Austria-Hungary, and had considerable undeveloped potentialities and assets. Hence the new State, under settled conditions, should take rank with the most important countries



## **Poland.**

of Central Europe. Since the League of Nations award on the plebiscite in Upper Silesia has led to the union of a fifth of that area with Poland, instead of with Germany, the economic position of the Republic has been further considerably strengthened. The capital city, Warsaw, has a population of nearly 1 million (i.e. is rather larger than Birmingham), while Lodz, a great industrial centre, has about half a million people. Lwow (Lemberg), the largest town of Eastern Galicia (formerly Austrian), has over 200,000; Cracow in Western Galicia has 180,000; Posen, the chief centre of former German Poland, has 160,000; while Byelostok, an agricultural and industrial centre, Czestochowa, a textile centre, and Sosnowiec in the mining region, have each about 100,000 inhabitants. There was great poverty among the peasants of both Russian and Austrian Poland, and in the latter region (Galicia) the density of population was greater than the land, under existing conditions, could support. Hence each year hundreds of thousands of Poles left their country, of whom a large proportion went to the United States. Others, in great numbers, went temporarily to Germany or to other parts of Austria, to work as agricultural or unskilled labourers, returning with their wages to their homes. Even in Prussian Poland, which was not overpeopled, there was a strong tendency to migrate westwards to the wealthy industrial regions or to America. Elementary education is compulsory, and at Warsaw, Cracow, Posen, Lublin and Lemberg (Lwow) there are Universities. In addition, there are several important institutions for technical and scientific study.

**Position and General Physical Conditions.**—Poland lies between the North German and the Russian Plains. It consists essentially of the basins of the Vistula and Upper Warta (a tributary of the Oder), and stretches from the Carpathian Mountains towards the Baltic Sea. Only by a narrow corridor, however, does it actually reach the shore, and the city of Danzig, standing at the head of this corridor, has been created a free port, lying outside the Republic. Except in this corridor, which follows the valley of the lower Vistula, the northern boundary is formed by the Masuren lakes and marshes, a poor and thinly peopled territory which interposed a natural barrier between the Poles and the East Prussians who occupied the actual seaboard. In consequence of its position, the climate of Poland is intermediate between the purely Continental (i.e. extreme) type found in Russia, and the milder, wetter type of Western Europe. The average temperature in December, January and February is well below freezing point, while the summers are rather hotter, and brighter, than those experienced in London. The rainfall (except on the Carpathians, where it is considerable) is only moderate (less than in East Anglia), but as most of it falls in the summer, sufficient is normally available for the crops. Snow falls in winter, but does not lie at all thickly as it does in Russia. The rivers and canals are closed by ice until the March thaws set in, and Danzig harbour is only kept open by ice-breakers. The whole of Poland was at one time glaciated, and consequently glacial soils, including clays, loams and sands, often of great fertility, are widely distributed. The tendency is, however, for the drainage to be poor, so that many areas are water-logged, and must be artificially drained before they can be put under the plough. The largest such area is the Pripet marshes on the Russian frontier. East of Lemberg a portion of the rich "black earth" country comes within the

**Poland.**

boundaries of Poland. Beneath the glacial soils, the plains are built of young sedimentary rocks similar to those of the English Plain, and containing no minerals, but the Lysa Gora Hills, south of Radom, and the hilly country north of Cracow, are built of much older rocks, and both are mining regions. The Carpathians are built largely of sandstone, and except in the central region south of Przemyśl, are well clothed with timber, especially fir, spruce and pine. Except for the country east of the Dniester, which is steppe land, the whole of the plain was at one time forested with mixed deciduous and coniferous trees, and in spite of the gradual destruction of the woods for generations as the farmlands were extended, a considerable proportion of the country (25 per cent), especially where the soil is poor, is still heavily timbered.

**Human and Economic Conditions.**—Agricultural methods, including the generous use of manures, the employment of up-to-date machinery, and careful rotation of crops, are most advanced in Prussian Poland, and most backward in Galicia. As has been already stated, the Polish peasants are very poor, and their standard of comfort is consequently low, while it is necessary for women and children to work upon the land to bring the family wage up to subsistence level. Hence crops can be grown which require considerable attention and hand labour, the most important being **potatoes** and **sugar-beet**. The normal potato crop was over 20 million tons, the area sown being  $17\frac{1}{2}$  per cent. of the arable land in Russian and Prussian Poland, although only 6 per cent. in Galicia. Potatoes are a very important staple of peasant diet, but an enormous surplus remains for the distillation of *alcohol*, which is an important industry. The sugar-beet crop before the War was about 4 million tons, yielding 720,000 tons of sugar, of which the greater part was available for export, although much was then consumed in other parts of Germany and Russia. In 1920–21 the output was 400,000 tons. Owing to the comparatively severe climate, the most important cereal crops are **rye** and **oats**, and black bread is generally eaten by the peasants. The output of these cereals should be in excess of local requirements. **Wheat** is grown on the best soils in Prussian and Russian Poland, but is relatively more important in Galicia, where, as it lies farther south, it is somewhat warmer. **Barley** is rather more important than wheat, but **maize** appears only on the steppe lands of Eastern Galicia. Both wheat and maize, besides flour, were formerly supplemented from the fields of Hungary and the Ukraine.

Among secondary crops, *flax* and *hemp* are very generally cultivated, although often merely for local use by the peasants. *Hops* are grown on a small scale, besides *colza* and feeding-roots.

The animal industries are important, since the beet-residue and oats supply feeding-stuffs, and in Galicia there is a very large hay crop. **Horse**-breeding is widely carried on, and there were before the War about 6 million horned **cattle**, considerable attention being paid to dairying. In conjunction with the latter, *pigs* and *poultry* were reared in large numbers, and there was a surplus of meat, bacon and eggs. Sheep-breeding has declined with the subdivision of the land into small holdings, and is only of local importance for mutton and coarse wool. All the flocks and herds are, of course, depleted by the ravages of War.

A law has been passed limiting the size of estates and holdings, and large owners are being dispossessed.



## Poland.

The mineral resources of Poland are fairly considerable, but insufficient for the needs of the industrial regions. The **coal**-fields are situated in the south-west, and are part of the fields of Upper Silesia and that part of Silesia incorporated with Czecho-Slovakia. The Dabrowa district, in former Russian Poland, was the most important previous to the Silesian award, while the Galician field, west of Cracow, has large reserves. The pre-war output of these fields was under 9 million tons, or about a third of the requirements of the Republic, and did not include coking coal. The 1921 output reached 78 per cent. of that of 1913. Since October, 1921, the transference of the Silesian mines gives a further 20 to 30 million tons annually to Poland, including the valuable industrial coal of the Rybnik district, where there are large coking-plants, **Iron ore** is abundant, although of moderate quality only, and is mined chiefly in the Lysa Gora district, with a little also near Cracow, but the Polish smelting works were mainly supplied from South Russia, and will now probably buy superior ore from Scandinavia to mix with the local product. The million tons of ore mined in the Upper Silesian district will probably continue to be used in that region. **Zinc** and to a less extent **lead** are mined in the hilly district west of Cracow, not far from the coal-field, and with additional capital the output (limited now to a few thousands of tons) might be considerably increased. The much better worked Silesian mines now lie in Polish territory, together with the important zinc, silver and lead smelting works of Kattowitz and district.

The only mineral, however, of which Poland has an exportable surplus is **oil**, which is obtained from the Galician oil-wells, situated at Boryslaw on the Carpathian Foreland, at Bitkow, farther east, and at Krosno, farther west, the field being 220 miles in length. At present the chief yield is from the central (Boryslaw) district, which is, however, considered to be approaching exhaustion. The pre-war output was some 7 million barrels annually, while 5 million barrels were produced in 1920. Near Boryslaw deposits of **ozokerite** (paraffin wax) occur which are the main source of the world's supply.

Galicia has also the famous **salt** mines of Wieliczka and Bochnia, producing annually nearly 300,000 tons, worth about a million sterling. There are also some **potash** deposits, which, although not very extensive, are capable of development. Thus the position of Poland as regards minerals is on the whole a favourable one.

The *industries* employing the greatest number of people are those concerned with food-stuffs, notably the distillation of alcohol, and the preparation of starch from potatoes, the manufacture and to a certain extent the refining of sugar, brewing, flour-milling and so forth. These are carried on in all the principal cities and large market towns. Ranking next in importance are the great *textile* industries of former Russian Poland, carried on in the district to the west of Warsaw and centring at Lodz. The output of **cottons** was valued at £14 millions, the principal towns engaged being Lodz, Kalisz, Czestochowa and Blonie. The finished article was generally of coarse quality, but cotton laces and Swiss embroideries were also largely made. The machinery employed was British, although many of the enterprises were managed and financed by Germans. **Woollens** and wool and cotton mixtures were turned out to a value almost as great as that of cottons, Lodz being again the principal centre with a large manufacture



**Poland.**

also of cheap ready-made clothing. There are also large woollen mills in Byelostok (North-east Poland) and in Biala (Western Galicia). The silk, linen, jute and hemp industries (making use of local flax and hemp) are on a small scale only. In 1921 the chief textile industries had reached to about half their pre-war output.

The *iron and steel* industry was only fairly developed, the smelting works (located in the south-west within easy reach of the iron and coal mines) turning out under half a million tons of pig-iron. Iron and steel articles were mainly produced at Warsaw, and in all the chief urban centres there were engineering and machine shops turning out tools and the lighter kinds of agricultural machinery. Poland must, however, buy from abroad steel rails, girders, plates, galvanised iron, wire, rolling-stock, and heavy machinery generally. The Upper Silesian award placed important German iron-ore mines, besides blast furnaces, foundries, rolling-mills and engineering workshops within the boundaries of Poland.

Galicia, with abundant and varied timber resources, has manufactures of bent-wood *furniture*, *parquet-flooring*, boxes, barrels and other articles.

Minor industries are the manufacture of *leather goods*, *paper* and *glass*, and in Warsaw and its suburbs many kinds of luxury articles and fancy goods. Broadly speaking, however, the manufactures of Poland can supply only a part of the domestic demand, and the country offers an important market for most varieties of manufactured goods. The abundance of cheap labour was one of the main assets of the Polish (or the German-Polish) manufacturer. The present industrial output is only a fraction of that before the War.

**Trade Relations.**—Nothing can be definitely stated as to the direction and volume of the external trade of the new Poland. The surplus yield of food-stuffs (sugar, meat and poultry products), raw materials (timber, industrial alcohol) and mineral oil should find a ready market in Czecho-Slovakia and industrial Germany, or even farther west. In return Poland must have wheat and maize, which later on the Ukraine, Rumania, or Hungary could supply in exchange for Polish manufactures, these being more suitable for Eastern than for Western European customers, and she must also import raw cotton and raw wool, vegetable fats and oils, manures, fish, colonial produce, and coal, besides large quantities of manufactured goods, especially those of high quality or of complex character. Czecho-Slovakia, Germany, Switzerland and Sweden are favourably placed for supplying these goods, while Great Britain can ship them directly by sea to the free port of Danzig, which will be the principal gate of entry into Poland now that the customs barrier is abolished.

Poland has a useful system of internal waterways for carrying timber, ores, etc., in the Vistula and its main tributaries, which are linked through the Bromberg Canal and the Bug-Dnieper Canal with North Germany and the Ukraine respectively. The railway system and the roads, especially in Russian and Austrian Poland, need renewal and extension.

**General Information.**—The temporary monetary unit is the Polish *mark*, of fluctuating exchange value, the currency being paper only. The metric system of weights and measures is in use. There is a British Consul at Warsaw, Vice-Consuls at Boryslaw and Lemberg. A Commercial Secretary is attached to the British Legation.

**Porto Rico.****PORTO RICO.**

**Area and Population.**—Porto Rico was ceded to the United States by Spain in 1898, and is administered by a Governor. On an area of 3,600 square miles there is a population of nearly  $1\frac{1}{3}$  millions, that is to say the island is very densely peopled. The northern seaport and capital, San Juan, has 71,000 people; the southern seaport, Ponce, has 41,000. The *per capita* trade of £36 a year bears witness to the prosperity of the country, and its value to the United States, which it supplies with tropical produce. As in Cuba, whites are greatly in excess of coloured persons among the population, the proportion being as two to one. The whites are of Spanish extraction, the coloured population is mainly negro, but since 1898 there is also a small but important group of white Americans. Spanish is generally spoken, and Roman Catholicism is the prevailing religion, while a majority of adults are illiterate. Every facility, however, is now afforded for the elementary education of the younger people and children.

**Position, Climate and General Physical Conditions.**—

Porto Rico forms one of the group of islands known as the Greater Antilles, and lies in latitude  $18^{\circ}$  North, i.e. within the tropics. It is in the direct track of the north-east trades, and as it is mountainous in character, the rainfall, especially in the summer months, is abundant. The lee-slopes of the mountains are, of course, drier than the windward slopes and summits, and here, therefore, the season of winter drought is more severely felt. The winters are very warm, and hence irrigated land is almost continuously productive, and many of the plantations are already improved by this means. The soil on the coastal plain and in the valleys is unusually rich, and contains a high percentage of lime. The better-watered upland areas are densely forested with evergreens, which include valuable *cabinet woods* (*mahogany*, *ebony*, *cedar*), *dye woods* and *tanning materials*, which are as yet scarcely exploited. In drier situations, natural pasture, mingled with drought-resisting trees and shrubs, predominates. The island lies, unfortunately, in the hurricane track.

**Human and Economic Conditions.**—Cultivation is confined

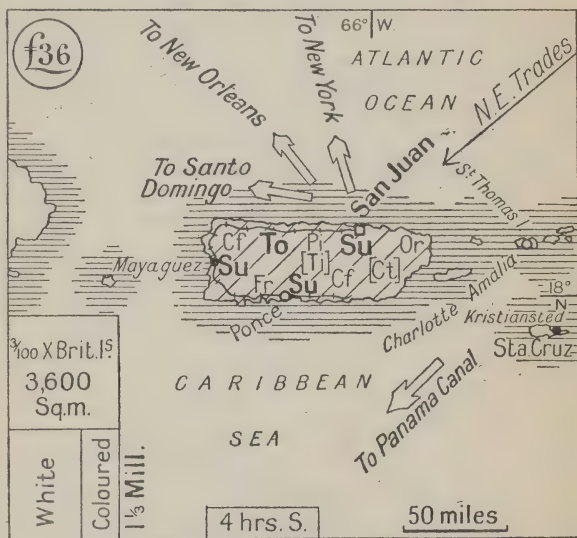


FIG. 110.—PORTO RICO.

**Portugal.**

to the coastal plain, the valleys, and the lower slopes of the mountains, the bulk of the land being divided into small holdings. *Coffee* grown on the higher mountain slopes was formerly the main staple of the island, but although it is of high quality, and still important, it has taken the third place owing to the great increase in **sugar** and **tobacco** planting. Nearly half a million tons of sugar are annually produced, and with the high prices prevailing in 1920 the export of this commodity alone was worth about £19 millions. The tobacco includes fine qualities, especially cigar-leaf, grown under artificial shade, and there is a large manufacture and export (to U.S.A.) of *cigars* and *cigarettes*, as well as of tobacco.

An industry of recent but rapidly growing importance, which depends upon the proximity of United States markets, is *fruit* and *vegetable* growing. Citrus fruits, especially oranges and grape fruit are in demand, and pine-apples, both fresh and canned, are also exported in bulk, while coco-nuts have recently been added to the list. Sea-island and other varieties of *cotton* are cultivated with success, although at present on a small scale only, while rice, sweet potatoes, yams and so forth are grown for local use. The rearing and export of *cattle* is of potential importance, as is the development of the *timber* resources already mentioned.

**Trade Relations and General Information.**—A railway running along the coastal plain, with a few small extensions unites San Juan, Mayaguez and Ponce, but there is room for improved transport facilities. The trade is almost exclusively with the United States, with which regular communication is maintained, and Porto Rico also serves as an entrepôt for neighbouring islands. The direct trade with Europe is negligible. United States money, weights and measures are employed. There is a British Consul at San Juan.

## PORTUGAL

**Area and Population.** — The Republic of Portugal has an area of 34,254 square miles, or with Azores and Madeira, which are considered as integral parts of the Republic and not as Colonies, a total of 35,500 square miles. It is, therefore, rather larger than Scotland. The population is approximately 6 million persons, of whom nearly half a million live in the islands. The total foreign trade averages between £50 and £60 millions or nearly £10 a head, which is much lower than that of Italy, although higher than that of Spain. Imports are, however, normally in marked excess of exports, and the balance is only partly redressed by money spent by foreign visitors in Madeira, by returns from the Colonies, and by money sent home by Portuguese emigrants and labourers in foreign lands. The capital city and principal seaport, Lisbon, has a population of about  $\frac{1}{2}$  million, while Oporto, the only other large urban centre, has 200,000 inhabitants. Setubal, the second port, has 30,000 people. The majority of the Portuguese are Roman Catholics, and the percentage of illiterates among adults is very high, but the proportion of children under instruction has lately increased. The death-rate is rather high, and there is steady emigration to Brazil and the United States.

**Position and General Physical Conditions.**—Portugal



## Portugal.

lies to the west of Spain, along the Atlantic seaboard, between  $37^{\circ}$  and  $42^{\circ}$  N. Owing to this favourable position, the Portuguese were among the earliest traders in the Far East, and still retain large colonial possessions, although the former importance of Lisbon as a colonial entrepôt has greatly declined. The country has the mildest winters of any part of Europe, while the average summer temperature is modified by the oceanic position, and the rains, though not excessive, are sufficiently abundant for agriculture. Towards the north they are fairly well distributed through the year, but in the centre and south, the summers are dry, and the sunny days are often very hot. This is especially the case in Algarve, a small province in the extreme south which has a southern aspect, and an almost African climate. The country as a whole is mountainous, especially in the north, where the Douro runs in a very deep, steep-sided valley, and the principal lowland is in Estremadura, to the south of the lower Tagus. The three principal rivers, the Douro, Tagus and Guadiana, flow across the Spanish tableland before entering Portugal, and each descends to sea-level through a wild gorge near the frontier, that of the Tagus being valueless as a route-way to the interior. This river has a splendid estuary, sheltered by hill ranges, upon which Lisbon stands. The Guadiana flows southward, its lower course forming the frontier.

The configuration of the country determines that considerable hydro-electric power is available, of which but a small fraction has been utilised. Conditions are most favourable in the north, where the régime of the rivers is more uniform.

**Human and Economic Conditions.**—The staple industry of Portugal is agriculture, but over 40 per cent. of the country is classed as waste, although it is probable that with scientific management part of this area could be reafforested, or made to bear crops. The leading cereals are **wheat** and **maize**, the former doing best in the drier south, while the latter yields more vigorously in the north, where the summers are not so dry.

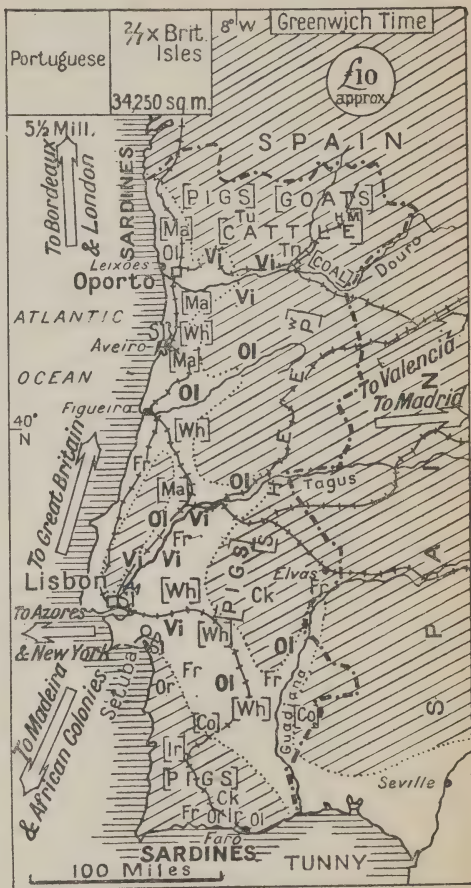


FIG. 111.—PORTUGAL.

**Portugal.**

*Beans* and *peas* are also largely grown, since they form a staple of peasant diet. The chief commercial crop is, however, the *vine*, which furnishes the most valuable Portuguese export, in the shape of port and other **wines**. Port wine is made from the grapes grown on the valley sides of the Douro and its tributaries, and the centre of the trade is Oporto. The Ebro valley has also very extensive vineyards. Over-production, and the marketing of wines of poor quality immediately after the War, have led to depression in the industry. Orchards cover an area slightly greater than that of the vineyards, the most important products being the **olives** and **oranges** of the centre and south. The normal yield of olive-oil is 580,000 hectolitres, but occasionally (as in 1920) the crop fails. In addition *figs*, peaches, apricots, almonds, pears, plums (*Elvas*), pomegranates, melons, and many other varieties of fruits and nuts, besides such vegetables as *onions* (known as "Spanish"), *tomatoes* and early potatoes are grown partly for export.

The animal industries are mainly of local importance. Horned *cattle* are more numerous in the wetter north, while *sheep* and *goats* graze on the coarse natural pasturage of the drier south. *Pigs* are pastured in the mountains and hills, which are clothed with vast forests of oak.

The chief commercial product of these forests is **cork** from the cork oaks, which cover one-fifth of the forested area. The yield is over 80,000 tons, and Portugal leads the world in this industry. There are, besides, sweet *chestnut* forests, which might be extended, since this tree has proved very profitable in southern France. The oaks are also valuable as timber trees, as are the pines, which cover nearly half the forest acreage, but there has been no systematic exploitation of these resources, partly for lack of transport facilities. Tar, resin, turpentine, pulpwood and barrels are all produced on a small scale.

The *fisheries* of Portugal employ nearly 50,000 people, and this industry has lately expanded. The chief fish caught are **tunny** and **sardines**, which are characteristic of these warm waters, the latter being more important. Since olive-oil is locally produced, the packing of fish in oil has become a considerable industry, and Portuguese sardines were marketed in Britain during the War to the value of £6 million or more. Setubal, to the south of Lisbon, is the leading fishing port. During the boom, a very inferior product was, however, placed on the market by a section of the manufacturers, with the result that Portuguese sardines fell into disrepute, and the industry suffered serious loss.

*Mining* is neglected, owing largely to legislative restrictions, although minerals are abundant, and the total output is under £2 million sterling, although lately there has been some advance made under the stimulus of high prices. **Iron ore** has the greatest value, the chief mines being in Algarve, and **wolfram** (tungsten ore) is next in importance, the output of ore rising to 1,400-1,600 tons during the War. There is very little *coal*, a factor retarding the general development of industry, but *tin*, *lead* and *copper* are extracted on a small scale, while the preparation of *bay-salt* gives employment to large numbers of workers at Aveiro, at Setubal, and on the estuary of the Tagus, where there are shallow lagoons.

The small manufactures of Portugal, including woollens, cottons, porcelain tiles, soap, leather, distilling, etc., are of local importance only, finding their market in the country itself, or in the Colonies.



## Portuguese East Africa.

**Trade Relations.**—Great Britain is a large purchaser of Portuguese produce, particularly of wine (nearly £8 millions in 1919), sardines and cork, besides fruit and vegetables, taking in some years nearly half the total. Coal, textiles, machinery and hardware are sent in return, but their value is usually less than that of the imports, and makes up only one-sixth to one-seventh of goods purchased by Portugal abroad. Spanish, Italian, French and German manufactured goods are marketed in Portugal, and the deficiency from the last three countries named has been made up recently by greatly increased imports from the United States. A considerable quantity of colonial produce also comes into Lisbon, including cacao and rubber (which are partly re-exported), oil-seeds and coffee.

Except at Lisbon, which is a first-class harbour, goods must be lightered, and vessels drawing over 18 ft. must discharge at Leixoes for Oporto.

**General Information.**—The unit of currency in Portugal is the gold *escudo* (formerly the milreis), worth normally 4s. 5½d. Notes are issued by the Bank of Portugal. The metric system is legally adopted, but the *libra* of 1·012 lb. is still in common use, while the measure of capacity is the *almude* of 3·7 gallons at Lisbon and of 5·6 gallons at Oporto. The chief banking institutions are the Banco de Portugal, the Banco Nacional Ultramarine and the London and Brazilian Bank.

Mails reach Portugal in 2½ days. There are a British Consul-General at Lisbon, a Consul at Oporto, and Vice-Consuls at Leixões (the outport of Oporto), Figueira (a small port at the mouth of the Mondego), Setubal and Faro (in Algarve). A Commercial Secretary is attached to the British Legation.

## PORTUGUESE EAST AFRICA

**Area and Population.**—Portuguese East Africa has a total area of 428,000 square miles (twelve times the size of Portugal), and a population of about 3 million natives, 10,500 whites and over 1,000 Asiatics. The colony is divided into three distinct parts : (1) The Province of Mozambique (including the Lourenço Marques, Gaza, Inhambane, Tete, Quilimane and Mozambique districts), which is administered by a High Commissioner; (2) the territory of the progressive and enterprising Mozambique Chartered Company, running from the Sofala-Beira district to the Zambesi ; (3) the territory of the Nyasa Chartered Company in the extreme north. The total foreign trade is about £12 millions, but the bulk of this is transit and entrepôt trade, since the most direct routes to the Transvaal, Rhodesia and Nyasaland are through Portuguese territory. The capital of the province is Lourenço Marques, with over 10,000 inhabitants, of whom nearly half are Europeans. The largest native town is Mozambique, the former capital. Since Great Britain received a mandate for Tanganyika Territory, the colony marches with British territory on every land frontier.

### Position, Climate and General Physical Conditions.

—Portuguese East Africa stretches along the east coast of South Africa, facing the Indian Ocean and the large island of Madagascar. As it extends from 11° S. latitude to 27° S., and is for the most part low-lying, the climate varies from tropical in the north to sub-tropical in the



**Portuguese East Africa.**

south, and is marked by the alternation of a wet summer season and a dry winter season. The lower Limpopo and Sabi rivers in the south, the lower Zambesi in the central region, and the Rovuma on the northern frontier

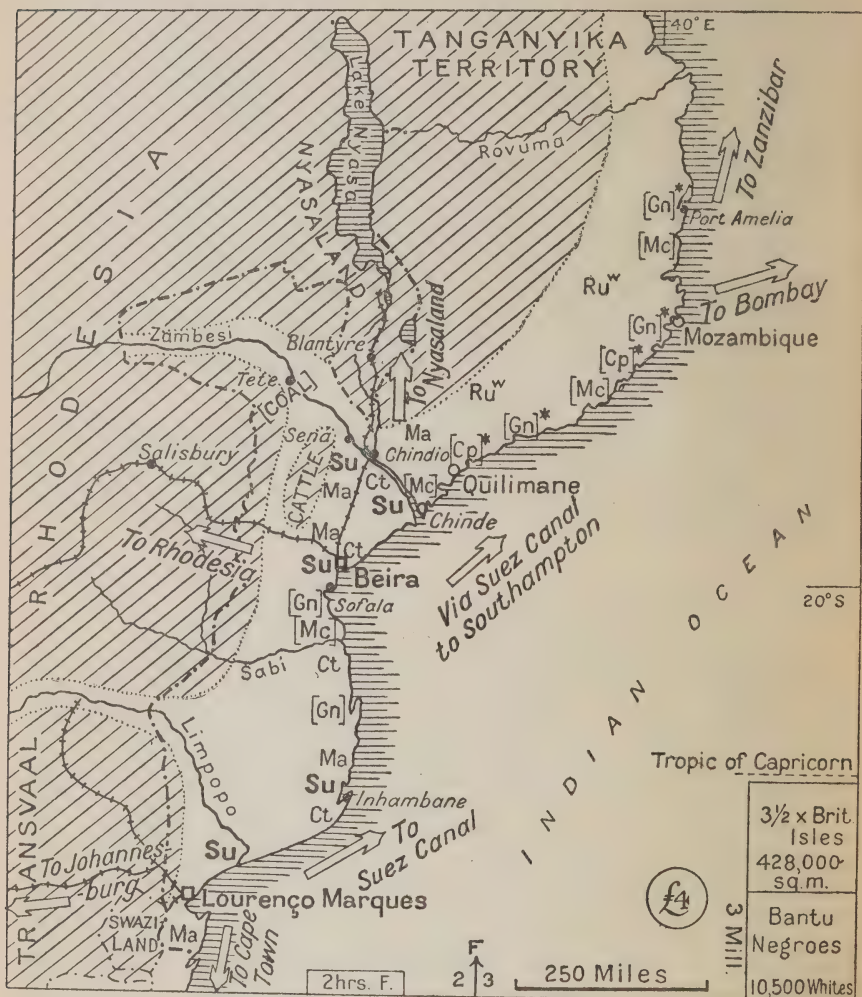


FIG. 112.—PORTUGUESE EAST AFRICA.

are the principal rivers. The marked seasonal character of the rainfall causes the rivers to fall very low at times, and lessens their value as means of communication.

Lying in the lee of Madagascar, the colony does not have a very heavy rainfall, so that dense tropical forests are confined to the Limpopo valley

## Portuguese East Africa.

and the Zambesi valley and delta. Elsewhere the country is lightly wooded, or clothed with thorn forest or park-like savannah.

**Human and Economic Conditions.**—The natives grow manioc, millet, ground-nuts and similar crops for their own use, and collect *rubber, gum, and wax* from the woods and forests for the purposes of barter with Europeans. Probably *ground-nuts* is the only product of purely native agriculture that might be greatly developed, and already there is a small export. The Portuguese colonists are establishing numerous plantations, worked by native and Asiatic labour. Of these the most successful so far have been the **sugar** plantations, found both round Delagoa Bay, in the south, and along the lower Zambesi (Sena district) and delta, where they are fostered by the Chartered Company. **Cotton** also does well, both in the Zambesi valley, near Beira, and in Gaza Land, farther south, but the present output totals under 10,000 bales. **Sisal** plantations are found to thrive round Ibo (in Nyasa) and Quilimane. **Maize** is the most important grain crop, as it is in neighbouring territories, and the export is increasing. **Coco-nuts**, oil-seeds (castor oil and sesame) and tropical fruits are among the crops that would repay development, and some millions of coco-nut palms have been planted.

The mineral resources include **gold** and **copper** in the Mozambique Company's territory, which are at present exploited only on a small scale. There is also an important **coal**-bearing region near Tete on the Zambesi, which it is expected will shortly be opened up.

**Trade Relations.**—The leading railways of the colony are the Lourenço Marques railway to Johannesburg in the Transvaal, and the Beira railway to Salisbury in Rhodesia. Recruiting in Portuguese territory for the Transvaal mines is allowed in return for an agreement that a certain proportion of British South African trade shall pass through Lourenço Marques instead of Durban. Over a million tons of Transvaal coal is shipped annually from this port. Chinde at the mouth of the Zambesi is the port at which goods and passengers are transhipped to river-steamers (which must be of shallow draft) and conveyed to Chindio, the terminus of the railway to Blantyre in British Nyasaland. A line from a point near Beira (already begun) will run north to the south bank of the Zambesi, the river being spanned by an aerial ropeway. Numerous other railway projects (including a line from Delagoa Bay through Swaziland) are being carried out, and the country is a prosperous one, in which capital should find a good return. The sugar exported finds a market in the adjacent British colonies, which can supply the grain and meat which are lacking in the Portuguese territory. There is also a market for cotton goods, hardware, agricultural and mining machinery and explosives. At Porto Amalia, the headquarters of the Nyasa Company, and at the other northern ports, India supplies, through Indian merchants and retailers, a large proportion of the cottons and fancy goods.

**General Information.**—The official unit of coinage is the *escudo* (milreis), of which 4·5 escudos = £1. English coins are largely current in the south, and British-Indian rupees in the north. There are branches of the National Overseas Bank of Portugal at all important trade centres. The National and Standard Banks of South Africa have branches at Lourenço Marques and at Beira.

**Portuguese India.**

Mails from Lisbon reach Lourenço Marques in twenty-seven days, Beira in thirty-three days. There is a British Consul-General at Lourenço Marques and at Chinde, Vice-Consuls at Beira, Quilimane, Porto Amalia and Mozambique.

**PORTUGUESE GUINEA**

**Area and Population.**—Portuguese Guinea (including the Bijagoz Archipelago and Bolama Island) has an area of 14,000 square miles (nearly half the area of Scotland), and a population of nearly 300,000, of whom all but a few hundreds are negroes. The foreign trade is valued at about £1 million, and passes through the principal seaport, Bissau, or through the capital, Bolama, on the island of that name.

**Position and General Conditions.**—Portuguese Guinea, on the West African coast, is surrounded by French territory. It lies between 11° N. and 12½° N., and has a hot wet summer, and a winter dry season, of which the latter part is intensely hot. Part of the country is forested, but much of the interior is of the savannah type, where the natives rear cattle, which yield *hides* for export. The chief commercial products are those gathered from the forests or wooded country, and include *rubber*, *wax*, and *palm oil*, which went formerly to Germany, but are now sent to Portugal and Great Britain. French merchants are also interesting themselves in the country, which is favourably placed with regard to their entrepôt of Dakar.

The National Overseas Bank of Portugal has branches at Bissau and Bolama, and there is a British Consular representative at Bissau.

**PORTUGUESE INDIA**

**Area and Population.**—Portuguese India includes Goa, Damão and Diu, covering in all an area of about 1,600 square miles, and having a population of rather over half a million. The trade is worth about £1 million, and is chiefly transit trade through Panjin (New Goa), the capital of Goa, and its outport Mormugão, which are connected by rail with the general railway system of British India.

**Position and General Information.**—Goa is on the Malabar Coast, south of Bombay, Damão is on the coast about 100 miles north of Bombay, while Diu is a small island off the southern extremity of the Kathiawar Peninsula. The two latter have **salt** works, and salt and salt fish are exported. In Goa rice is grown for local use, and there are also **coco-nut** groves, both the nuts and **copra** being exported. There are **manganese** mines in Goa. The unit of currency is the Portuguese *escudo*, worth normally 4s. 5¼d. The National Overseas Bank of Portugal (with a London office) has branches at New Goa and Mormugão. At the latter port there is a British Consul.



**PORTUGUESE WEST AFRICA**

See **Angola**, p. 17.

**PRINCIPIÉ & S. THOMÉ**

See **S. Thomé and Principé**, p. 417.

**PRUSSIA**

See **German Republic**, p. 237.

**PUNJAB**

See **India**, p. 280.

**QUEENSLAND**

See **Australia**, p. 34.

**RÉUNION**

**Area and Population.**—Réunion (or Bourbon) is a French Colony, administered by a Governor. The area is 970 square miles, and the population about 180,000, i.e. 184 to the square mile. Of this total 160,000 (89 per cent.) are Europeans, mainly of French descent, the coloured population including British Indians, besides immigrants from Madagascar, Africa, China and Zanzibar. The total trade averages over £3 millions (nearly £16 a head), and is capable of great increase.<sup>1</sup>

**Position and General Physical Conditions.**—Réunion belongs to the same group of islands as Mauritius and lies just over 20° S. of the Equator, and about 420 miles east of Madagascar. The climate is fairly uniformly hot, but not excessively so, and is not unhealthy. The rainfall is sufficient to support a tropical forest growth, of which considerable areas remain uncleared. A heavy surf, and the occurrence of tropical cyclones, make the island dangerous for shipping, although Pointe-des-Galets harbour is safe when once entered.

**Human and Economic Conditions.**—As in Mauritius, the staple crop of Réunion is **sugar**, and large quantities of *rum* are manufactured. Although the island is larger than Mauritius, the sugar crop is less than one-tenth of that in the neighbouring island, where there is a far larger supply of coolie (British Indian) labour. The crops of secondary

<sup>1</sup> For Map see Mauritius.

**Rhodesia.**

importance are *manioc*, *coffee* and *vanilla*. There are good motor-roads, but only 80 miles of railway, running along the coast from Pointe-des-Galets, the principal port.

**Trade Relations and General Information.**—The trade of Réunion passes through Tamatave (Madagascar) or Port Louis (Mauritius). The produce of the island is marketed in France, from which manufactured articles are sent in return. Rice and other food-stuffs are imported from India and Madagascar. The chief banking establishment is the Bank of Réunion. There is cable connection with Mauritius and Madagascar. There is a British Consul at Réunion.

## RHODESIA

**Area and Population.**—Rhodesia is administered by the British South Africa Company, to which a Charter was granted in 1889. The territory covers over 440,000 square miles, i.e. it is nearly as large as the Union of South Africa, and has a population of 1·7 millions, of whom only 41,000 are Europeans. The native population is fairly evenly divided between Northern and Southern Rhodesia, which lie north and south of the Zambesi River respectively, but 38,000 of the Europeans, i.e. over 90 per cent., live in Southern Rhodesia. The total foreign trade in 1919 was over £8 millions, i.e. £200 for each member of the British community. Of this total, £5 millions, or over 60 per cent., was export trade, and gold accounted for about half the value of the exports. In 1913 gold represented about four-fifths of the value of the exports, and hence considerable progress has been made since that date in the development of agricultural and other mining industries. The administrative centre of Southern Rhodesia is Salisbury, and of Northern Rhodesia, Livingstone, situated where the railway crosses the Zambesi.

**Position and Climate.**—Rhodesia stretches from the borders of the Transvaal in the south to the Belgian Congo in the north, approximately from latitude  $22\frac{1}{2}^{\circ}$  S. to latitude  $8^{\circ}$  S.—i.e. a similar range of latitude to the Indian Dekkan. Hence it enjoys a powerful tropical sun, with the rays vertical twice during the year, but owing to the elevation of the greater part of the land the air itself remains relatively cool and fresh, and the climate is a healthy one in which European children thrive. The rains, which are only moderate (20 to 40 in.), occur in the five (southern) summer and autumn months, November to March, and during the rest of the year as a rule cloudless skies and brilliant sunshine are enjoyed. In Northern Rhodesia, which lies nearer the Equator, it is necessary to ascend to greater altitudes to find a pleasant climate than in Southern Rhodesia. In the low valleys excessive heat is experienced, and tropical diseases are common, such valleys also harbouring the tsetse fly, whose bite is fatal to cattle and horses.

**General Physical Conditions.**—Rhodesia forms part of the great South African tableland, and is on the whole a rolling, but not a mountainous country. The greatest elevations are found in the north, between the Zambesi and Congo basins; in the north-east, between the Zambesi basin and Lake Nyasa; and in the south-east, between the Zambesi

**Rhodesia.**

and Limpopo basins. The Zambesi is broken by the great Victoria Falls, where the water tumbles 370 ft. into a gorge forty miles long. The valley below this gorge is one of the low-lying, unhealthy regions, as are the tributary valleys of the Kafue and Loangwa in Northern Rhodesia, and the

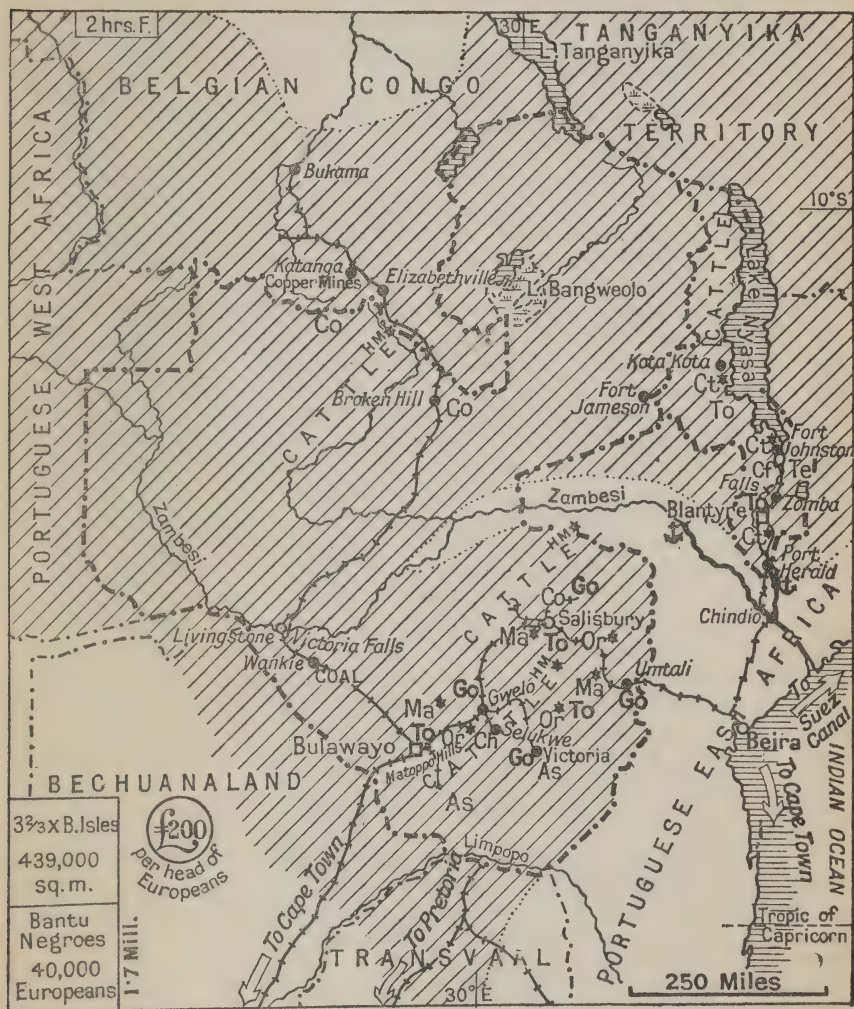


FIG. 113.—RHODESIA AND NYASALAND.

land sloping to the Limpopo in the extreme south-east of Southern Rhodesia. During the prolonged dry season the larger rivers become very shallow, while the smaller dry up altogether.

Over the whole country, owing to the moderate rains, grasses are more characteristic than trees, i.e. Rhodesia is a savannah, rather than a forest



**Rhodesia.**

country. Trees are spaced out as in an orchard, or dotted about singly or in clumps as in a park, the baobab, palms and acacias being conspicuous among them. Only in the valley bottoms is there a thicker woodland, with dense undergrowth. Big game, including lions and elephants, is still abundant, especially in Northern Rhodesia.

**Human and Economic Conditions.**—The native peoples, who belong to the Bantu race, have settled down to peaceful ways and submitted to British control and taxation. The majority live in accordance with tribal custom, and maintain themselves by simple agriculture (the women's work) and cattle rearing. The unoccupied territory is so vast that the existence of this native population is no obstacle to the colonisation and development of Rhodesia as a white man's country. In and about the European settlements the natives perform all necessary manual labour, both on the farms, in the mines, and as domestic servants, carriers and the like: they are thus a valuable economic asset, and no labour problem has yet arisen to hinder development.

Although a great variety of crops will grow in Rhodesia, the staples of the European farmer are at present two only, **maize** and **tobacco**. Maize has hitherto been grown only for local consumption, there being a large demand for this grain as food for the thousands of labourers in the mines. The high cost of transport to the distant seaboard would seem to preclude an export of so bulky an article, but the quality of the maize is so excellent that it finds a market in Australia and elsewhere for seed purposes. A beginning, too, has been made of pig-breeding, since maize can be profitably fed to pigs: a bacon factory has been established. Rhodesian tobacco is of high quality and finds a ready market in England, there being now nearly 7,500 acres planted, yielding over 3 million lb. Scarcity of fertilisers and the generally difficult conditions led to a setback during the War. Three-quarters of the acreage is under Virginian varieties, the remainder under Turkish. A large number of fruits do well in Rhodesia, and among them **oranges** reach a standard of perfection that promises the extension of the newly established export trade. An important irrigation dam across the Mazoe River, 20 miles north of Salisbury, has been completed by the Chartered Company, and will water large orange groves. At present, shipment is via Cape Town, but if the volume of the trade allows, it may go through Beira, although suitable (chilled) shipping space will present a difficulty.

The abundance of natural grasses, and the absence of any cold season, make Southern Rhodesia an ideal **cattle** country. Very little manger feeding is necessary, and now that local needs are more than supplied, slaughter cattle are finding a good market in Johannesburg, the value of this trade reaching over £ $\frac{1}{4}$  million in 1919. From Northern Rhodesia, if existing restrictions are removed, slaughter cattle will go to the mining region of Belgian Congo, and an industry in chilled meat may develop. Great attention is paid to the quality of the herds. A dairying industry is well established. Arable farmers are advised to extend their range of crops, growing especially legumes in rotation, and feeding these to stock. In this way the land benefits by the restoration of nitrogen, and by the farmyard manure, while the dairying and slaughtering position is also strengthened.

The development of the great *mineral* wealth of Rhodesia is still only in its infancy. **Gold** occurs very widely in reefs, especially in the elevated

## Rumania.

belt forming the south-eastern watershed of the Zambesi, near Salisbury, Gwelo, Bulawayo, Umtali and Victoria. Since 1890, the output has totalled nearly £50 millions, and there are some 500 mines in operation (output, £3 millions in 1920). **Copper** ranks next to gold in order of value (over £300,000 export in 1920), and is mined both in Southern Rhodesia and in the extreme north-west of Northern Rhodesia. Other mines of importance are those of **chrome iron** ore at Selukwe, of **asbestos**, near Victoria, and south-east of Bulawayo, and of **lead** at Broken Hill in Northern Rhodesia. The value of the minerals other than gold exported in 1918 and 1919 was well over £1 million sterling. The Wankie **coal**-field is exploited for local use on the railways and at the mines, and over half a million tons were mined in 1920. The Congo railways and Beira also purchase coal.

The railway—part of the Cape to Cairo system—has played a great part in enabling these mineral properties to be developed. Entering the country from Bechuanaland in the south-west, it runs to Bulawayo and there divides into two main lines. The one runs north-eastward through Gwelo to Salisbury, throwing off branches to the more important mines. From Salisbury it runs eastwards through Umtali and enters Portuguese territory, terminating at the port of Beira, through which the overseas trade of Rhodesia is carried on. The second line runs north-westward through an undeveloped country, passes the Wankie coal-field and crosses the Zambesi close to the Victoria Falls, thence it again traverses an undeveloped country following a north-easterly and then a northerly course through Broken Hill. Finally, it passes into the Belgian Congo, where there is an exceedingly rich copper mining territory round Katanga. The total length of the system is about 2,500 miles, and since the traffic is necessarily small in a thinly populated country, freight charges are very high. There are large railway workshops at Bulawayo.

**Trade Relations.**—Rhodesian produce, with the exceptions mentioned, goes mainly to the United Kingdom. All goods which the mother country can supply are also purchased from Britain, including textiles, apparel, boots and shoes, iron and steel goods, machinery, and some beverages and provisions. Timber comes from Sweden, petroleum from the United States, tea and gunny bags from India, sugar from Mauritius and Portuguese East Africa, flour and butter from Australasia. Goods from large steamers must be lightered at Beira.

**General Information.**—The African Banking Corporation, National Bank of South Africa, and Standard Bank of South Africa have branches in Bulawayo and Salisbury. Mails reach Rhodesia in twenty-three days. British coins, weights and measures are in use.

## RIO DE ORO

See **Fernando Po**, p. 209.

## RUMANIA

**Area and Population.**—The Kingdom of Rumania has now an area of approximately 122,000 square miles (rather larger than the British Isles) and a population of 17 millions. The result of the War was to add



**Rumania.**

some 70,000 square miles of territory and 9 million people to the Rumanian Crown, at the expense of Hungary (Transylvania and the Banat) and of Russia (Bukovina and Bessarabia). Although in these territories Rumanians are in the majority, there are yet important minorities of Magyars, Germans, Russians and Bulgars, with in addition Osmanli Turks in the Dobruja, a territory extended at the expense of Bulgaria during the last Balkan War. There are also large numbers of Jews in the towns, especially in the newly acquired territories. Figures are not available for the total trade of Greater Rumania, but that of the old Kingdom was about £50 millions, or over £7 a head. Hence, at a conservative estimate, the trade, once normal conditions are restored, should not fall short of £100 millions in each direction. The only large cities are Bucharest, the capital, with over 300,000 inhabitants, and Kishinev (Chisinau) in Bessarabia with over 100,000. Czernowitz (Cernauti), the chief centre of Bukovina, Braila and Galatz, the Danubian ports of Rumania, Jassy in Moldavia, Klausenburg (Cluj) in Transylvania, Temesvar in the Banat, are also of importance as markets and distributing centres for their respective regions. Broadly speaking, Rumania is a grain country, with (under normal circumstances) a large surplus of this essential commodity to offer in exchange for the manufactured goods of Central and Western Europe. The Rumanians claim descent from the ancient Dacians, whose blood was mingled with that of the Roman colonists, and the Rumanian language is a derivative of Latin. It contains, however, many Slavonic words, and the people have undoubtedly a Slavonic strain. The greater number of Rumanians are adherents of the Eastern Orthodox Church, but there are large minorities of Greek Catholics, Roman Catholics, Protestants and Jews. About half the population is illiterate, although in this respect matters are improving.

### **Position, Climate and General Physical Conditions.**

—Rumania lies in East-central Europe, to the north of the Balkan Peninsula. It extends from latitude  $43\frac{1}{2}^{\circ}$  N. to latitude  $48\frac{1}{2}^{\circ}$  N., or roughly, from the latitude of Marseilles to that of Paris. The climate is, however, more extreme than that of France, and the Danube is closed by ice during January and February; the summers are as hot as those of Spain, while the rainfall is very moderate, and occurs chiefly in summer. There is a danger of drought, so that the harvest sometimes fails from this cause.

The River Dniester forms the frontier between Rumania and Ukraine, but with this exception, the whole country drains to the Danube. A roughly triangular mountain mass, formed by the Eastern Carpathians (to the east), the Transylvanian Alps (to the south) and the Bihar Mountains (to the west), and enclosing the Transylvanian plateau, forms the core of the country. The Szamos and the Maros, draining Transylvania northward and westward respectively, open out route-ways to the Hungarian Plain, where they join the Theiss, which in its turn joins the Danube. This river then enters Wallachia by the Iron Gate, a gorge between the Transylvanian Alps and the Balkan Mountains, and subsequently forms the southern frontier of the country for a considerable distance. Between the Transylvanian Alps and the Danube lies the Wallachian Plain, hilly to the north, but level and with a rich, deep soil to the south. Across it flows the Alt or Oltu, which rises in Transylvania, cuts the "Red Tower" gorge through the mountains, and finally joins the Danube. At Czernavoda the Danube makes a great bend northwards, and its marshes and braided network of backwaters form



## Rumania.

an eastern boundary to Wallachia, separating it from Dobruja. The latter is a limestone plateau, arid and steppe-like in its aspect.

At Galatz the Danube turns sharply eastwards once more, being joined near this point by the Sereth and the Pruth, rivers of which the long trough-like valleys form the characteristic feature of Moldavia and Bessarabia, the rolling country which lies between the Eastern Carpathians and the Russian Plain. Not far below the confluence of the Pruth, the Danube splits up into several channels, forming a great delta on the shore of the Black Sea, the Sulina mouth being the only one which is kept free of the accumulating silt.



FIG. 114—RUMANIA.

**Human and Economic Conditions.**—The plains and vales all round the central mountain mass had originally the character of almost treeless steppe, and are now sown with vast fields of **maize** and **wheat**, of which a large surplus is available for export. Greater Rumania will rank second to Argentina as a maize-exporting country, and should stand fourth

**Rumania.**

or fifth among the countries supplying the world with wheat in bulk. Braila and Galatz, both reached by ocean-going steamers, are the great grain ports, having a favourable position for the collection of the product alike from Wallachia, Moldavia and Bessarabia, although formerly the latter region was served by Odessa. The wheat and maize of the Banat and the Maros valley and the maize of Transylvania had their natural market formerly at Temesvar and Arad, as intermediate centres for Buda-Pest, en route for Austria and Germany, and may continue to move in this direction. The expropriation of the large landed proprietors and the division of land among the peasants is going on, and will have an effect on production difficult to gauge. The landowners undoubtedly farmed more scientifically than the peasants, and were better able to employ agricultural machinery: hence there will probably be a period of reaction and under-production.

Minor crops are *sugar-beet*, *tobacco* and *fruit*, including plums (for prunes) in the hilly districts. The *vine* is also very generally cultivated in the hilly parts of the country, but the wine is not of high quality and is usually consumed locally. Some *silk* is cultivated in the Banat, and *oats* and *potatoes* are locally important in the upland regions.

The Carpathians (including the greater part of Bukovina), the Transylvanian Alps, and the Bihar Mountains are heavily forested, and the **timber** industry is very important. Oak and beech on the lower ridges, pine and fir at greater elevations, are the chief trees. Timber-working is important in the Banat, and a great deal of timber is also floated down the Sereth and other rivers to the Danube. There is need for a more systematic working of the forests, and an opening for the introduction of manufactures of wooden goods. The Levant, Italy and Spain are the chief markets at present.

The acorns and beech-mast afford pasture for *pigs*, of which there are nearly 2 millions, and since there is abundance of maize, the bacon and lard industry is one capable of development. The mountains afford much natural pasture, and parts of the plains are under hay, so that **cattle**-rearing receives considerable attention, and a meat industry already exists. The number of cattle is probably between 4 and 5 millions, and there are between 5 and 6 million sheep. As is usual in grain countries, poultry are very numerous and *eggs* are an article of export.

The mineral wealth of Rumania has been considerably increased by the acquisition of Transylvania and the Banat. In the former there are **gold** mines in the south-east of the Bihar Mountains (Zalatna), this metal being in association with copper, silver and lead. There are also *lignite* beds and *iron* ore on the northern slopes of the Transylvanian Alps, and there are ironworks at Vajda-Hunyad. Of much greater importance, however, are the **iron** and **coal** mines of the south-east of the Banat, which, being found in association, have given rise to a large iron and steel industry centred at Resiczabanya and at Nadrag in the Temes valley.

In old Rumania, there is a little coal mined on the southern slopes of the Mountains, but the most valuable mineral is **oil**, which is said to underlie the whole of the mountain foreland. At present the chief output is from the region to the north of Ploesci, but there are also producing wells in the Departments of Buzeu and Bacau farther east and north. The pre-war output reached 12 million barrels, the country standing fourth on the list of large producers, and the latest figures show that, in spite of the destruction of the well-gear during the War, more than half the previous



## Rumania.

yield is once more available. Foreign (including British) capital is largely employed in developing the oil properties. There are pipe lines from Baicoiu, on the main field, to Constanta, and to Giurgiu on the Danube, but lack of transport facilities (the pipes were damaged and have only partly been restored, while pumps are needed) has hindered export. There are useful salt deposits in Moldavia, and *phosphates* in Bessarabia.

The industries of Rumania, apart from the iron and steel works (formerly Hungarian) already mentioned, are limited to flour-milling (nearly 5,000 mills), oil-refining, [and some small manufactures of beer and spirits, textiles, food-stuffs, etc., having local importance only.

**Trade Relations.**—Rumania buys from abroad a considerable quantity of cotton and other textiles, besides iron and steel goods, and especially agricultural machinery, tools and flour-milling machinery. As regards general manufactures, Germany and Austria, by reason of their favourable position, were able to supply the greater part of what was needed. In the case of agricultural machinery, however, British traction engines and threshers were usually bought, while the United States found a ready sale for reapers and binders. This is, therefore, a market which should be cultivated, as with the increase of territory there has come a great increase of agricultural land. The field is carefully worked by German trade agents, who are ready to give the long credits and other facilities demanded by a farming population.

The sea-borne trade of Rumania is divided fairly evenly between Braila, Galatz and Constanta. The latter, situated in the Dobruja, is always ice-free, and lies directly east of Bucharest, with which it is connected by rail, via the great bridge of Czernavoda (destroyed during the War and now being rebuilt). These ports also serve Transylvania, by the route that crosses the mountains to Brasso (Kronstadt). Among the river ports along the Danube may be mentioned Giurgiu, opposite the Bulgarian port, Rustchuk, and Turnu Severin, just below the Iron Gate. The last named has ship-building and repairing yards for river craft. The Danube is canalised through the Iron Gate, where there are rapids which are difficult to navigate.

The railway system of Rumania is controlled and in large part owned by the State, and a comprehensive scheme of improvement and extension was interrupted by the War. Over 7,000 miles are open for traffic, but there is an enormous deficiency of rolling stock, and lack of transport facilities is hindering Rumania's recovery.

An International Commission, having its seat at Galatz, controls the navigation of the Danube. The Sulina bar, when properly dredged, allows vessels drawing 24 ft. to proceed up the river.

**General Information.**—The unit of currency is the gold *lëu* (of 100 *bani*), equal to the franc, i.e. 25·22 *lëi* equal one pound sterling. The smallest gold piece actually coined is of 5 *lëi*. The National Bank of Rumania has the power of issuing notes, the existing currency being mainly paper. The Bank of Rumania has a London office, while the London, County, Westminster and Parr's Bank is agent for the leading banks at Bucharest. Mails reach Rumania in five days. There is a British Consul-General (who is also Commissioner for the Danube) at Bucharest, Consuls at Czernowitz and Cluj, Vice-Consuls at Braila, Galatz, Sulina and Constantza, besides a British Commercial Secretary at Bucharest.



## RUSSIA

**Area and Population.**—The Russian Soviet Republic has as yet no definite boundaries, and the stability of some of the new autonomous Republics on its borders, which came into existence in 1918, is open to doubt. Finland, the Baltic States, Poland and Ukraine appear firmly established, and have been treated separately, as have also the Don, Kuban, Terek and Taurida Republics.

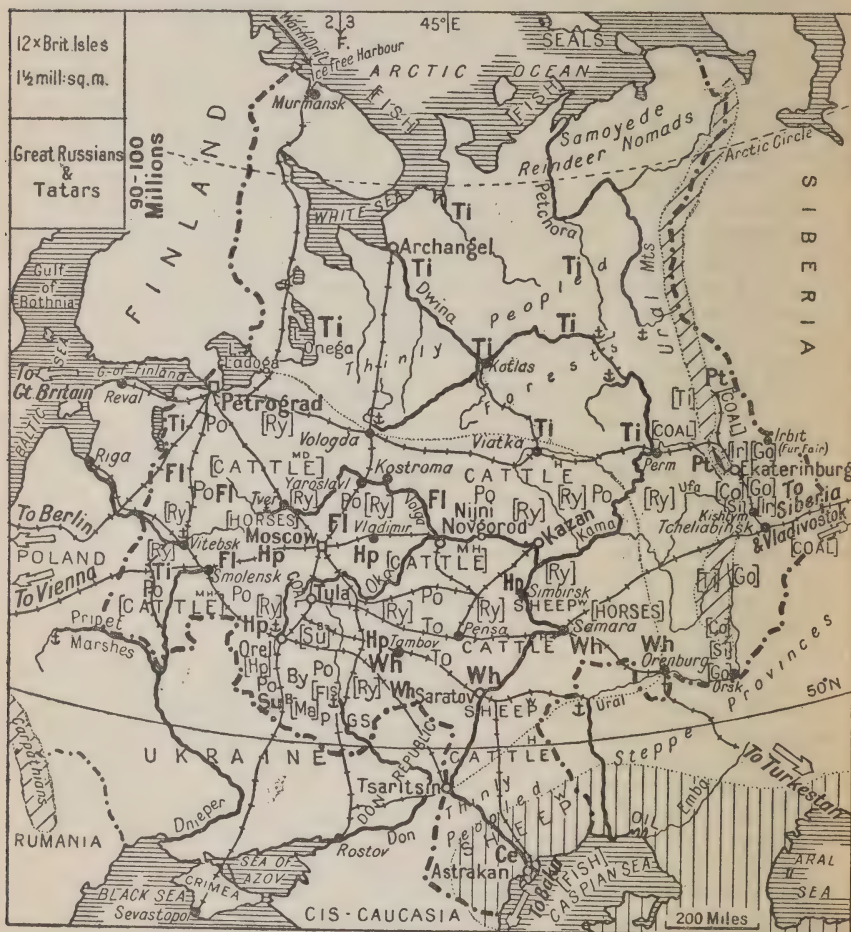


FIG. 115.—SOVIET RUSSIA.

The remainder of Russia-in-Europe comprises some  $1\frac{1}{2}$  million square miles, and has a population of 90 to 100 millions. Trade and industry have been brought almost to a standstill by revolution and civil war, so that the following pages deal mainly with the economic possibilities of the region, as shown by its pre-war production and industry. Existing conditions are referred to where information offers. Moscow has succeeded

## **Russia.**

Petrograd as the capital of the country, owing to its historical associations and central position. The population of Moscow has been reduced from  $1\frac{1}{2}$  millions to 700,000, and that of Petrograd from 2 millions to 1 million. Other large centres of population are Saratov, Kazan and Astrakan, ports on the great Volga waterway, each with over 150,000 people; Tula, a manufacturing city south of Moscow, with over 100,000; Nijni Novgorod, a great trading centre, famous for its annual fair, also with 100,000; besides a number of large market and traffic centres in the leading agricultural districts, including Minsk, Veronesk, Orel, and Vitebsk. Archangel, the White Sea port of North Russia, had 45,000 inhabitants in 1914. The people of Soviet Russia are in the main Great Russians, but there are two groups of peoples of Asiatic origin—the Samoyeds of the extreme north-east, and various Tatar peoples, including Kalmucks, Kirghiz, Tatars and Baschkirs in the extreme south-east. The two latter races (numbering over 3 millions) have proclaimed a Tatar-Baschkir Republic to the east of the Volga, which will not be considered separately. There are also large German colonies on the Lower Volga. Broadly speaking, the peasantry of Soviet Russia are very backward and uneducated, being inferior in these respects to those of several of the States that have declared their independence. A large majority are quite illiterate. The chief importance of this part of the former Russian Empire lay in its fields of flax and hemp, in its forests of timber, and in its mineral wealth, while it passed on the products of the farms and forests of Siberia to the Western world. It afforded a market also for manufactured goods and Colonial wares, large in the aggregate, although the individual purchasing power of the population has always been very small. A hopeful and useful feature in Russian peasant life is the growth of Co-operative Societies for buying, selling and credit. The membership totals many millions.

### **Position, Climate and General Physical Conditions.**

—Soviet Russia includes roughly the whole basin of the Volga, and the part of the Great European Plain which drains to the Arctic Ocean. Thus it lies open to the Arctic seaboard, and to that of the Caspian, into which the Volga flows, while a very small portion of the Baltic coast in the neighbourhood of Petrograd also remains Russian. The Black Sea ports and the best of the Baltic ports are lost. Since the bounding latitudes are  $45^{\circ}$  N. and  $70^{\circ}$  N. there is a great range of climates. Within the Arctic Circle there is a brief, cool summer of five or six weeks, while for the rest of the year the region is frost-bound, and usually under snow. Yet in the north-west of this region, the last eddies of the Gulf Stream Drift keep the sea and the shore free from ice, so that it was possible to create the port of Murmansk, which remains open while Archangel, much farther south, on the White Sea, is frozen up. South of this so-called “tundra” region, the basins of the Dwina, Petchora and Kama (an affluent reaching the Volga from the north), have a climate marked by the length and severity of the winter months, yet having quite a warm summer. Here are the great coniferous forests, so valuable for their timber. South of these forests is the Upper Volga basin, this river flowing eastwards from the Valdai Hills to its junction with the Kama. In this region, which feels the influence of the Baltic Sea, the summers are yet warmer, but the winters are less severe, and there is a more plentiful rainfall than farther north. Here the natural vegetation is a mixed forest, in which oak, beech, elm and other



deciduous trees are important. Much of the region has been cleared for agriculture, but it still has valuable timber resources. Both here, however, and in the Upper Dnieper basin, which is of the same character, there is much swampy ground, owing to the occurrence of a heavy ill-drained clay soil. Stretching diagonally from the Carpathian Mountains to the Middle Volga basin is the famous Black Earth region, of which the eastern part alone remains to Soviet Russia. Here the winters, though severe, are not very long, while the summers are intensely hot: most rain falls in the spring months, the total being small. These are steppe-lands, with woods only in the valleys and in scattered patches: nowadays the steppe is ploughed and grain grows instead of grass. There remains for description only the Lower Volga basin, from the elbow bend at Tsaritsin, where it approaches the Don, to the great delta by which it enters the Caspian Sea. This is a very low-lying region, with excessive summer heat and drought, so that the sandy soil is saline, and the steppe vegetation is of a poor type. The Volga here forms a braided channel between innumerable shifting sandbanks, and navigation is rendered very difficult. For a short season in winter the lower river is ice-bound. This arid south-eastern lowland is the only part of the Russian Soviet Republic which lies farther south than the British Isles.

**Human and Economic Conditions.**—The Russian Republic is in the first instance an agricultural country, and should produce a surplus of agricultural wealth. At present, however, there is a breach between the peasants and the industrial workers, and the tendency is for the former to produce merely for their own needs, so that former "money crops" are neglected. Even where there is a surplus, the lack of rolling-stock on the railways (barely 25 per cent. of the former total of locomotives, etc., is available) prevents efficient marketing, and much perishable stock is wasted. The length of the winter in the centre and north, and the lack of rain in the south-east, limit the region in which **wheat** is of importance to a belt running from the Ukraine frontier to the southern Urals, within which, however, the crop is a very large one. Elsewhere the chief cereal is **rye**, which, in the form of coarse bread, is the staple of peasant diet. **Oats** are very generally grown for the numerous stock and draught animals. **Barley** is of less importance, although it ripens quickly enough to be grown in the cold northern forest region by the scattered population. **Potatoes** are a very widely grown crop, both for food and for the very important starch and alcohol industries. From the western frontier to Moscow and Nijni Novgorod is the region of intensive **flax** production, formerly the leading source of the world's supply, the export from this part of Russia being worth some £7-8 millions. Also of great importance was the **hemp** crop, which was grown on the greatest acreage in the governments round Moscow, and towards the frontier of the Ukraine. The export was worth nearly £2 millions, Russia again leading as regards this variety of hemp.

**Tobacco** is another crop of importance, especially in the Kozlof district, although the most productive fields now lie within the borders of Ukraine and the south-eastern Republics. Soviet Russia is, however, probably at least self-supporting in respect of this commodity. **Sugar-beet** is grown to the south of Tula, but the areas of intensive beet culture are now for the most part in the Ukraine. Stock-rearing is carried on in conjunction with farming throughout the great central agricultural belt: *horses, cattle,*



## Russia.

*sheep* and *pigs* all being important. In the south-east, animal breeding is the leading occupation among the Tatar peoples, and there is a surplus of hides and coarse wool for the industrial centres. Elsewhere, the fat, meat and milk products of the industry are in the main consumed locally, although in the west there is some dairying for the foreign market.

The limited area sown with grain (partly owing to lack of seed corn) coupled with the unusual drought, led to a famine in Eastern Russia in 1921.

The forests of Soviet Russia cover 250 million acres, chiefly in the northern governments and in the Urals. Large quantities of **timber** are cut for domestic use and also as industrial fuel for locomotives, factories and smelting works (charcoal). The northern forests are also the chief source of the world's supply of **tar** and **pitch**, which is shipped from Archangel. Britain alone took 12,000 tons of tar and 6,000 tons of pitch in 1913. With the development of the coal-tar industry, however, the Russian wood-tar industry has declined. There remains, however, an opening for the preparation of the important by-products of tar. The forests are not worked to capacity as regards their *timber*, for whereas Sweden exports 20 standards per 1,000 acres, Russia only exports  $1\frac{1}{2}$  standards; and whereas much of the Swedish timber goes abroad part manufactured, whether as joinery (frames, sashes, joists), ply-wood, celluloid, paper-pulp or paper, Russian timber is almost entirely unmanufactured. The Swedish forests have, however, the advantage of a greatly superior location, since the largest Russian rivers (Dwina, Petchora) suitable for timber rafts flow to the Arctic Ocean. The various northern affluents of the Volga bring the forest products to the central and southern regions, while the lake system behind Petrograd (Onega, Ladoga) is also valuable in this respect. The north-eastern forests also yield *furs* to the value of about £70,000, but the chief source of supply is Siberia, and an annual fur fair is held at Irbit, on the eastern frontier of Russia-in-Europe.

The *fisheries* of Russia are important, and fish enters largely into the diet of the peasantry. Of greatest value are the sturgeon fisheries (for *caviare*) of the lower Volga, and the Caspian fisheries generally, which support over 115,000 fishermen and their families. Off the Murman and White Sea coasts, there are *herring* fisheries, besides *seals* (for oil) in the Arctic Ocean. Apart from *caviare*, which was exported from Astrakan to the value of about £ $\frac{1}{2}$  million, the fish are consumed within the country, and Russia was formerly a very considerable importer of salt herrings and stock-fish from the North Sea and elsewhere.

The mineral wealth of the Russian Soviet Republic is very considerable indeed, although the most valuable coal-field (the Donetz) and the even more valuable oil-fields (the Baku) lie in regions which have now proclaimed their independence. Apart from Siberia (which is treated separately), Russia has two **coal**-fields, both very favourably located, viz. that of Moscow, lying to the south of the capital, and in the heart of the industrial region, and that of the Urals, which supplies the local smelting furnaces. The output from these two fields has increased from  $\frac{1}{2}$  million tons in 1916 to 1 million tons in 1920, but this increase is trifling in view of the almost complete cessation of supplies from the Donetz, which, instead of producing 20 million tons, produced only 3 millions in 1920, i.e. insufficient even for the Ukraine. For the whole of the Russian Republics, including Siberia, the 1921 estimate is only  $7\frac{1}{2}$ – $7\frac{3}{4}$  million tons, which is under one-third of the pre-war output. *Iron*

ore is very abundant in the Ural region (like the coal, it lies on the east of the range), and hence with the loss of Krinói Rog (in Ukraine) this becomes the chief Russian iron and steel centre. Of greater importance to the outside world, however, are the **platinum** workings, which are normally responsible for over 90 per cent. of the total supply of this precious metal. Russia also produces annually about 50 tons of **gold**, of which 10 tons or more come from the Ural mines, and the remainder chiefly from Siberia. This is retained in the country. A great deal of foreign, especially British, capital is invested in the Ural region, and the Kishtym, Sissert and Tanalyk Estates are well known in this country. The first named Company introduced the important electrolytic process for the extraction of metals, with the result that the output of **silver** was more than doubled, while the output of **copper** rose in the Urals alone to 170,000 tons, and there is every prospect of Russia becoming a copper-exporting country, instead of importing as at present. Some gold is also recovered by the electrolytic process, while much of this metal is now obtained from reefs. As regards zinc and lead, Russia-in-Europe must look to Siberia, for both in the Steppe Provinces and in the Altai Mountain region there appear to be very large undeveloped resources in white and also in coloured metals.

The manufacturing industries of Russia are normally very considerable, and fill a large proportion of the home demand as regards large classes of commodities. Lack of fuel, lack of means of transport, shortage of raw materials, and absenteeism among the workmen are responsible for the greatly reduced production under the existing régime. As regards the **iron** and **steel** industry, nearly half a million tons of pig iron were produced by forty-nine blast furnaces in the Urals in 1913, while from the Martin furnaces there was a large output of steel ingots and castings, and large rolling mills were at work. In 1920 only three or four furnaces were active. Similarly, in Central Russia only 4 per cent. of the 1913 output was maintained. Manufactures of iron and steel are carried on in Moscow and many of the towns of Central Russia, while Petrograd was also important in this respect. The country was formerly self-supporting as regards locomotives and rolling-stock, and there was a large manufacture of constructional steel, wire, rails, pipes, plough-shares, shovels, besides some agricultural machinery. Miscellaneous *metal wares* of copper, brass, etc., are also made, chiefly in the Moscow district and Petrograd. They include samovars, lamps, kettles and other domestic utensils. The very considerable *textile* industry is also limited to the same regions, the Polish textile area being lost. **Cottons** are the most important product,  $7\frac{1}{4}$  million spindles remaining to Soviet Russia. Raw cotton comes from Turkestan and from the Caucasus, and upon this Central Russia has always mainly depended. The blockade reduced supplies of foreign yarn and cut off Egyptian cotton, but the "home" crop for 1917-18 was estimated at 1 million bales, an increase on the pre-war figure.

The **woollen** industry is on a smaller scale, as although the coarse local wool suffices for the coarse cloth woven in the east of the industrial region at Penza, Simbursk and Tambov, the fine cloth of Moscow and Petrograd is made from imported merino wool and yarn, mainly from Britain or from British Colonies. Moscow also makes shoddy and "union" goods. There are 385,000 woollen spindles and 19,000 looms in Soviet Russia.

The **silk** industry draws about 15 per cent. of the raw material required



## Russia.

from the Caucasus and Turkestan. There are 7,000 hand and 8,500 mechanical looms, besides 271,000 spindles. In addition, there is a small linen-weaving industry. Rope and cordage are made from local hemp, while Petrograd had formerly a jute industry, relying on imported material.

**Rubber** was still engaging 8,000 workmen in 1920, although the seven large factories of Petrograd, Moscow and Vladimir are reduced to four, and the important Riga industry has been lost. Goloshes, tyres, hose and belting are among the products.

The Russian **glass** and **china** industry satisfied the major demands of the home market, including that for window glass; but there was an import of high-grade goods, including fine china and technical glass, electric bulbs, etc.

The **paper**, cardboard, cellulose and pulp industries have not been developed to the extent that the timber resources of the country warrant, and there is normally an import to the value of £2-3 millions annually. *Matches* and heavy *chemicals* are locally produced, and some *electrical goods* are made at Petrograd, Moscow and Nijni Novgorod.

A large group of industries are carried on in the towns of the agricultural districts, depending upon the farms for raw materials. Such are brewing, distilling and starch manufacture, the manufacture of tobacco and cigarettes, soap and candles (from animal fats), flour-milling, tanning and leather work.

**Trade Relations.**—Broadly speaking, the trade of Soviet Russia should consist in sending food-stuffs and raw materials westwards in exchange for the higher grades of manufactured goods, with a secondary trade in sending coarse manufactures into Asia in return for the raw materials and food-stuffs of Siberia, Turkestan and Persia. As regards the trade with the West, it resolves itself into a competition between Great Britain and Germany, the latter country possessing the advantage of direct rail communication, while Britain has a more important place in the trade via the Baltic. The manufactures of Russia are for the time being negligible, and there are great arrears of demand to be made up, but the country has no immediately realisable assets. Farm stock is depleted, and lack of implements, machinery and manures has lowered the capacity of the soil from which supplies of flax and hemp might be drawn. Capital, machinery, efficient transport, and fuel, are needed for the development of forest and mineral resources. Thus only by the extension of very long credits can trade be restored. Even under normal circumstances the Russian buyer must be accorded longer credit than is customary in Western Europe, since payments depend on the annual harvest. Moreover, the Russian buyer does not come to Germany or to Britain to place his orders, but must be sought out in his own country. The numbers of German agents and commercial travellers in Russia, who were able to adjust qualities, quantities, and prices of goods to accord with local custom and prejudice, helped to give Germany pre-eminence in pre-war Russian trade.

**General Information.**—The unit of currency in Russia is the *rouble*, normally worth rather more than 2s. 1½d., or 9·46 roubles = £1 sterling. The Bank of Russia issues notes against a guarantee fund in gold. The Russian Commercial and Industrial Bank, with London offices, normally does business all over Russia. The unit of weight is the *pood* of



**St. Helena.**

36 lb. (16 tons = 1,000 poods), and the unit of area is the *dessiatine* of 2·7 acres. A British Commercial Counsellor and a Commercial Secretary are stationed at Moscow.

**RUSSIA IN ASIA**

See **Siberia**, p. 423.

**RUSSIAN TURKESTAN**

See **Turkestan**, p. 460.

**ST. HELENA**

**General Information.**—St. Helena is a British Colony administered by a Governor. The area is 47 square miles, and population 3,600. The foreign trade is £110,000. The island is of volcanic origin, and lies in latitude 16° S., 1,200 miles from the mainland of South Africa. It is fertile and healthy. Fruit and vegetables are grown, and cattle reared for local use. The only commercial product of importance is New Zealand *flax* (phormium), which forms almost the sole export. St. Helena is an Admiralty coaling station and has cable connection with Cape Town and St. Vincent. An Imperial Trade Correspondent resides at St. Helena.

**ST. PIERRE AND MIQUELON**

**General Conditions.**—St. Pierre and Miquelon are the largest islands of two groups off the south coast of Newfoundland, which form a French colony under an Administrator. The total area of the groups is 93 square miles, and the population between four and five thousand. The total trade is about £½ million, **fish** (salted and dried cod) being exported, and textiles, food-stuffs, salt and miscellaneous manufactured articles imported. The local fishing industry is very small, but the islands are important as a station for the French fishing fleet which annually visits the Grand Banks and Newfoundland waters.<sup>1</sup>

Cables between France and Canada are landed at St. Pierre, where there is a British Consul.

**SAKHALIN, JAPANESE**

See **Japanese Sakhalin**, p. 313.

<sup>1</sup> For Map see Newfoundland.

## SALVADOR

**Area and Population.**—The Republic of Salvador has an area of 13,200 square miles (nearly twice the size of Wales) and a population of  $1\frac{1}{4}$  millions (nearly 100 to the square mile). Salvador is a member of the new Federation of Central American Republics. Only about  $\frac{1}{4}$  million people are of European (mainly Spanish) descent or are foreigners, the remaining million being either Indians (one-fourth) or of mixed Indian and Spanish birth (three-fourths). The principal towns are situated at a considerable elevation, as elsewhere in Central America. They are San Salvador, the capital, with 66,000 inhabitants, Santa Ana (60,000), San Miguel, Nueva, San Salvador and San Vicente with populations between 20,000 and 30,000. Both in 1917 and 1919 great havoc was wrought by severe earthquake shocks. The total trade of Salvador is nearly £4 millions, or about £3 a head, the volume having shown but little increase during the last ten years. Education is nominally compulsory, but a majority of the population are illiterate.<sup>1</sup>

**General Physical Conditions.**—Salvador is in Central America, on the Pacific slope of the mountains that run through that region. It lies between latitudes  $13^{\circ}$  and  $14^{\circ}$  N., but except on the narrow coast plain, the uniform tropical heat is modified by elevation. The summer rainfall is abundant, while the weather is dry in the winter months. The mountain slopes are forested, except where cleared for agriculture, the trees including valuable dye-woods and hardwoods.

**Human and Economic Conditions.**—Grain, beans, cacao, sugar, tobacco, fruit and vegetables are grown for local consumption. The chief money crop is **coffee**, of which the export is worth £2 millions. Since the country has a Pacific seaboard only, the valuable fruit trade developed by the neighbouring Republics overlooking the Caribbean Sea is absent.

**Pigs and cattle** are reared, and mining, especially for **silver**, is of growing importance. Gold, copper and mercury are also found.

**Trade Relations.**—About half the coffee exported goes to the United States, and nearly a third to France. The remainder is distributed in various European countries, including Norway, Holland and the United Kingdom (1.65 per cent). The imports (cottons, hardware, flour, drugs and chemicals) do not come so exclusively from the United States as in the case of most of the Central American Republics, the share of the United Kingdom averaging £300,000 or 20 per cent., a figure, however, below that of the pre-war years.

There are good roads in the Republic, and motor-vehicles are increasingly employed. Railways (narrow gauge) link the ports of Acajutla (in the north-west) and La Union (on the Gulf of Fonseca) with towns on the highlands. The nearest port to San Salvador City is La Libertad. All goods must be lightered.

**General Information.**—A gold standard is adopted, and the value of the silver *colon* is fixed by law at half the United States gold dollar. Paper money is in circulation, there being three local Banks of issue. The chief foreign banking establishment is the Commercial Bank of

<sup>1</sup> For Map see Guatemala.

**Samoa.**

Spanish America. The metric system is legally established, but the *libra* (1·043 lb.) the *arroba* (25 libras) and the *quintal* (100 libras) are generally in use. The language spoken is Spanish, and the religion of the mass of the people is Roman Catholic. There is a British Consul at San Salvador.

## SAMOAN ISLANDS (AMERICAN)

**Area and Population.**—Tutuila, the most westerly of the larger islands of the Samoan group, together with some adjacent islets, was ceded to the United States in 1900. The area is about 100 square miles, and the population nearly 8,000. It is important only as a naval station, the Commandant being also Governor of the islands.

**General Conditions.**—Situated in mid-Pacific, between 14° and 15° S. of the Equator, American Samoa has a rich soil, abundant rainfall and a uniformly hot but healthy climate. Cultivation is easy, and tropical fruits and vegetables are grown for local use, but there is no commercial development, and a little *copra* is the sole export.

The naval harbour at Pago-pago is deep and sheltered, and is a calling point for trans-Pacific mail steamers. There is a high-powered wireless station on Tutuila, which is in communication with both sides of the Pacific Ocean, and is open to commercial traffic.

## SAMOA, TERRITORY OF WESTERN, (formerly GERMAN SAMOAN ISLANDS)

**Area and Population.**—The Samoan or Navigators Islands, once a German dependency, are administered by New Zealand, which lies about 1,500 miles away to the south-south-west. The two chief islands are Savaii and Upolu, which cover 1,260 square miles. The population is 41,000, of whom about 38,000 are native Samoans. There are nearly 1,700 Europeans, British and Germans being in the majority. Owing to the repatriation of some thousand Chinese, the coolie population, which includes also Solomon Islanders, numbers only 2,000, and arrangements have now been made for an additional supply from China. The total trade is over £800,000, i.e. nearly £20 per head, but the native Samoans take little part in the commercial development of the islands, and consequently the whites and coolies are the effective economic population.<sup>1</sup>

**Position, Climate and General Physical Conditions.**—The Samoan Islands lie in the South Pacific Ocean, about 14° from the Equator, and 172° west of Greenwich. Time and dates are one day behind Fiji. The islands are of volcanic origin and hence have a very fertile soil, and as the S.E. trades bring heavy rains, the vegetation is luxuriant. Temperature varies but little, averaging 80° F. throughout the year.

**Human and Economic Conditions.**—The Samoans live

<sup>1</sup> For Map see Gilbert and Ellice Islands.



## **S. Thomé and Principe.**

mainly by fishing. They grow also such crops as coco-nuts, yams, and bread-fruit, besides rearing pigs and poultry. The staple product of the islands, as elsewhere in the Pacific, is **copra**. Both soil and climate are, however, suited to all the valuable plantation products associated with the East Indies. *Cacao* (of superior quality), *rubber* and *sugar* have been planted with success, and *coco-nut* plantations are very promising. In conjunction with the latter it is considered that *cattle* should be reared, since they keep the plantations free from weeds. Provided a labour supply is secured, the trade of Samoa may readily be quadrupled, and it is certainly bound to increase as the existing plantations come into bearing. *Fruits*, such as bananas, pine-apples and oranges could readily be grown.

**Trade Relations.**—The only seaport of Samoa is Apia, on an inlet in the north of Upolu. At present this is a mere roadstead, and new harbour works are imperative, as are roads to open up the country. The copra that is exported, with the small consignments of rubber and cacao, go chiefly to the United States, which sends in return cotton piece goods, apparel and haberdashery, hardware, construction materials, tinned salmon and other provisions. This trade was formerly in German hands. New Zealand sends tinned meat, Australia supplies flour, while rice and sugar come indirectly from Eastern Asia. A proportion of the cacao comes to London.

**General Information.**—The native population is Christian and partly educated, while native chiefs and judges take part in the administration. The Bank of New Zealand has a branch at Apia, and New Zealand notes and specie are current. There are regular sailings between Apia and Auckland (N.Z.), and Apia has a wireless station.

## **SANDWICH ISLANDS**

See **Hawaii**, p. 266.

## **S. THOMÉ AND PRINCIPE**

**Area and Population.**—The two islands of São Thomé and Principe form a Portuguese Province administered by a Governor. The area is 360 square miles, and the population nearly 60,000, of whom 54,000 are in S. Thomé. Europeans number about 1,500. The foreign trade is valued at between £3 millions and £4 millions, exports being in excess of imports. This gives the high figure of over £50 a head, due to the fact that the bulk of the native (negro) population labour on plantations under European direction.

**Position and General Conditions.**—S. Thomé and Principe are volcanic islands lying in the Gulf of Guinea, about 120 miles apart, and 130 miles from the African coast. S. Thomé is almost on the Equator, while Principe is in  $1\frac{1}{2}^{\circ}$  N. lat. Hence they have a uniformly hot and moist climate, which combined with the rich volcanic soil makes

**Seychelles.**

them exceedingly fertile. Labourers are imported from the mainland to work on the **cacao** plantations, which cover more than half the area of the islands. The output is between 30,000 and 50,000 tons, and forms the bulk of the exports. Minor products are *coffee*, *rubber* and *cinchona*. Food-stuffs, cotton textiles, tools and all supplies for the European planters form the chief imports. The trade is with Portugal and the United Kingdom.

The islands have cable connection with Nigeria and French Africa. Currency, weights and measures are as in Portugal, and the National Overseas Bank of Portugal has a branch in either island. There is a British Consular representative at S. Thomé.

**SANTO DOMINGO**

See **Dominican Republic**, p. 184.

**SARDINIA**

See **Italy**, p. 296.

**SASKATCHEWAN**

See **Canada**, p. 123.

**SAXONY**

See **German Republic**, p. 237.

**SCOTLAND**

See **British Isles**, p. 84.

**SELANGOR**

See **Malaya**, p. 328.

**SENEGAL**

See **French West Africa**, p. 231.

**SERBIA**

See **Jugo-Slavia**, p. 314.

**SEYCHELLES**

**Area and Population.**—The Seychelles Archipelago, formerly French, is a British Colony, administered by a Governor. The principal island is Mahé, capital Victoria, while others are Praslin, La Digue and

## Seychelles.

**Silhouette.** Many smaller groups (Amirante Islands, Aldabra Islands, Providence Islands, Cosmoledo Group, etc.), making 90 in all, are attached to the Seychelles, the total area being 156 square miles, and the population 25,000. The trade averages about £150,000, or £6 a head, but fluctuates considerably, as shipping difficulties have been acute. In 1919 the figure was £320,000, taking the rupee at 2s. A small number of persons of pure French descent (originally from Mauritius) form the aristocracy of the islands. The bulk of the peasantry and small landowners are negroes or half-castes, and there are also Indian and Chinese elements in the population.

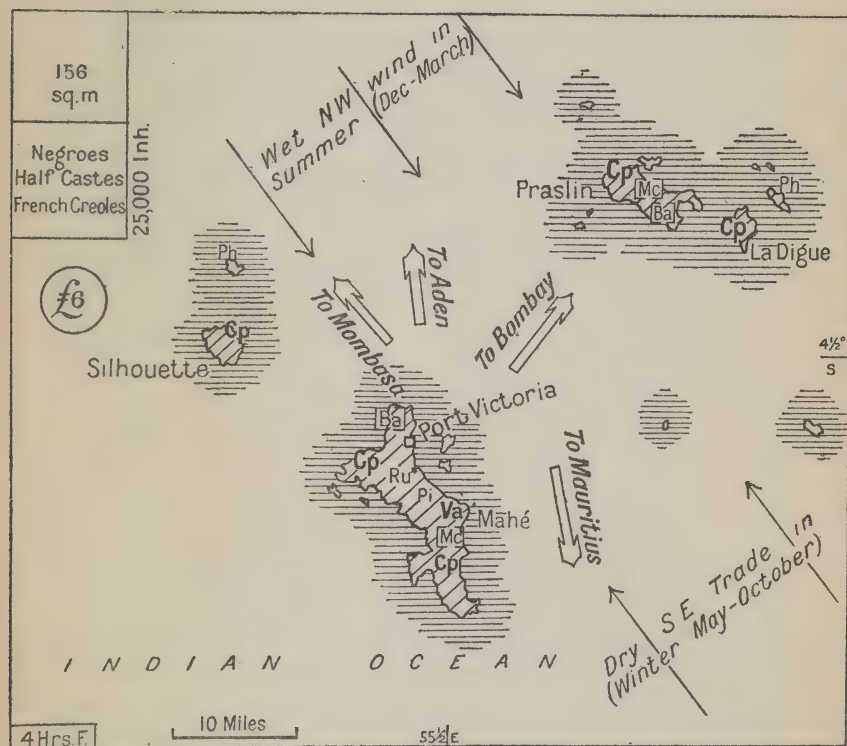


FIG. 116.—THE SEYCHELLES.

**Position and General Physical Conditions.**—The Seychelles lie in the Indian Ocean about  $4\frac{1}{2}^{\circ}$  S. of the Equator, and nearly a thousand miles east of Mombasa. Their climate resembles that of the Pacific Islands, i.e. uniformly warm, with abundant moisture, and the death-rate is low. The vegetation is tropical, coco-nut plants and cinnamon trees growing abundantly, while the shores are usually fringed with mangrove. Owing to the low latitude hurricanes do not occur.

**Human and Economic Conditions.**—The peasantry grow manioc, yams and bananas for their own use, and keep poultry and a few



**Siam.**

pigs. The chief commercial products are **copra** and **coco-nut oil**, (three-fourths of the total) and the oil-pressing industry is to be improved and extended. The Seychelles are also one of the leading sources of supply of *vanilla*, and an industry of great promise is the distillation of *cinnamon oil*, besides some production of *oil of cloves*. There are considerable **rubber** and **pine-apple** plantations, dating from recent years, and as labour is plentiful, and shipping facilities will gradually improve, a period of greatly increased trade and prosperity is to be expected.

On some of the islands there are deposits of **phosphates**, which are being increasingly shipped to Natal.

**Trade Relations and General Information.**—The vanilla and essential oils go largely to France, as do a large part of the coco-nut products. Among imports rice and cottons from India take a leading place, besides miscellaneous manufactured articles and beverages from Great Britain and France. Mauritius sends rum and sugar, besides re-exports of manufactures. The Seychelles are regularly visited by steamers sailing from India to Mombasa, and from Natal to Aden, Victoria being a coaling station. There is cable connection with Mauritius and Mombasa. The Commercial Bank of Mauritius has a branch at Victoria (Mahé). The currency consists of rupees, normally worth 1s. 4d. The metric system of weights and measures is in use. The Clerk to the Governor acts as British Trade Correspondent.

**SHANTUNG**

See **China**, p. 148.

**SIAM**

**Area and Population.**—The Kingdom of Siam covers an area of about 195,000 square miles (the area of Spain), and has a population of 9 millions (Spain has 21 millions). The people are a branch of the South Mongolian race, and as regards civilisation and culture resemble the Burmese. They are ready to adopt Western methods and ideas, and a fair percentage are literate, while a University has lately been instituted at Bangkok. British advisers and teachers are numerous, and English is the language of the Court and educated classes. The prosperity of the country is consequently increasing, and the foreign trade is £22 millions annually (1917–20), or over £2 a head. This figure is capable of increase in proportion as the undeveloped resources of the country are exploited and the standard of living rises. The exports exceed the imports by about £4 millions.

Practically the whole trade of the Kingdom is carried on through the capital, Bangkok, which in consequence has a population of over half a million. Nearly 40 per cent. of these are Chinese, for most of the trading and industrial enterprises are in the hands of Chinamen, and the same race supplies coolie labour for the mills and mines. The Siamese themselves are attached to the land, the great majority being peasant-farmers, but with the spread of education the natives will play a more active part in their country's

## Siam.

development. The little island of Puket, the chief centre for southern Siam, has nearly 180,000 people.

### Position, Climate and General Physical Conditions.

—Siam lies in the heart of the peninsula of Indo-China, between Burma and the French Indies, in the same latitude as Southern India. The climate is dominated by the monsoon winds, hence there is abundant summer rainfall—heaviest and most reliable on the coast belt and on the mountains—and a season of drought when the north-east off-shore monsoon is blowing.

The Kingdom includes also a long narrow strip of territory running down the Malay Peninsula, and this region, having sea on either hand, receives rain at both seasons. The climate is uniformly hot, especially in early summer before the rains, but the heat is not excessive.

The chief topographical feature of Siam is the Menam River, which runs from the north to the south of the country. It is on the flood plain of this river that the majority of the villages and towns are built, and the Menam is also a highway of commerce. The coast ranges and the mountains of the west and south-west are heavily forested, but there is a more open savannah country to the east which is relatively little developed. This open region drains to the Mekong, the great river of French Indo-China.

**Human and Economic Conditions.**—As in all the flood plains of the monsoon lands, **rice** is the staple crop, irrigation being easy, and in Siam there is a large surplus when local needs have been satisfied. Hence rice is also the money crop, and rice-milling is the leading industry of Bangkok. In 1919–20 the crop failed (under  $\frac{1}{2}$  million tons), but owing to abnormal prices, trade did not suffer. Cotton, sugar, millets, pulses, oil-seeds, fruits—the typical products of a monsoon country—are grown for local use only. *Pepper* is cultivated for export, and *rubber* is being planted with success in the coastal and Malay Peninsula regions.

*Cattle* and buffaloes in almost equal numbers (over 2 millions of each) are

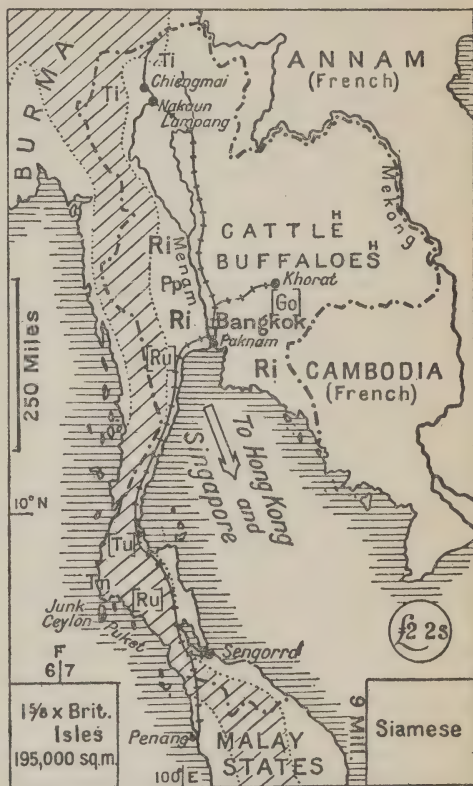


FIG. 117.—SIAM.

reared for draught purposes, and for their meat and milk, but only the hides are an article of commerce.

The forests yield bamboos, rattans, and a variety of woods for domestic purposes, but their chief commercial product is **teak**, which is cut largely in the north and north-west, the industry being mainly in British hands. Elephants are employed to move the logs, which are subsequently floated on the summer floods down the Menam to Bangkok, where there are saw-mills.

The *mineral* resources of Siam are considerable, especially in the mountain chain running down to Malaya. Just off the west coast is the rocky island of Junk Ceylon (Puket), with important **tin** mines, and this mineral is widely spread through the region, as it is in neighbouring Malaya and Burma. *Wolfram*, too, is mined with success, and there is coal in the peninsula. *Gold* is produced near Korat. There are also valuable mineral deposits in the north-west district now reached by the railway, which may include oil.

**Trade Relations.**—The railway system is centred in Bangkok, and consists of a line running northward up the Menam valley to Nakaun-Lampang, a centre for trans-frontier trade to Burma; a line running eastward to Korat; and a line running southward through the peninsula and connected with the Malay States railways, thus affording a through route to Singapore.

Owing to the bar at the mouth of the Menam, large ocean steamers cannot reach Bangkok, and consequently most of the trade goes through the entrepôts of Singapore and Hong-Kong, where goods are transhipped. Thus the ultimate destination and country of origin of the goods is not shown in trade returns, but the United Kingdom has a very important share.

Rice accounts for 80 per cent. of the total exports, being worth about £7½ millions (quantity over 1 million tons), and of this about one-tenth comes directly or indirectly to the United Kingdom, while most of the teak has the same destination (value over £1 million, 1919–20). The chief imports are cottons and cotton yarn (£2 millions), in which Britain meets with competition from Japan and India; gunny bags for the rice, which come from India; hardware, tools, cutlery, machinery and rolling stock, which Great Britain can supply; matches and silk goods, which come from Japan; besides motor-cars, electrical goods, chemicals, leather goods and stationery, in respect of which the United States can compete with Britain, although so far Americans have paid but little attention to the Siamese market.

**General Information.**—The official language is Siamese, and the religion professed is Buddhism. There is a Siamese bank, while the Banque de l'Indo-Chine, the Hong-Kong and Shanghai Banking Corporation, the Chartered Bank of India, and the Mercantile Bank of India have branches at Bangkok. The financial position of the Kingdom is very favourable.

There is a gold standard, the monetary unit being the silver *tical*, of which 13 ticals = £1 sterling. At present inconvertible paper of fluctuating exchange value is in circulation. The native weights and measures are not standardized, but the metric system is coming into use, and the *picul* of 133½ lb. is commonly employed. Mails reach Bangkok in about 5 weeks.

There is a British Consul-General at Bangkok, and Consular representatives at Chiang-mai, a large town in the north-west, Nakaun-Lampang, Senggora (the southern port of the Peninsula provinces), and Puket (Junk Ceylon).



## SIBERIA

**Area and Population.**—Siberia, including the Steppe Provinces north of the Sea of Aral, has an area of  $5\frac{1}{4}$  million square miles, and a population of approximately 14 millions. It is thus considerably larger than Canada with an area of  $3\frac{3}{4}$  million square miles, and a population of  $8\frac{1}{2}$  millions. The native tribes, Kirghiz on the steppes, Samoyeds, Tungus, and Yakuts in the forests and tundras are in the minority, the bulk of the population being Russian immigrants, mainly of the illiterate peasant class. They are grouped along, or within the reach of the Trans-Siberian railroad, and along the banks of the great rivers, by which steamer communication with the railway is possible in summer. The leading cities are Omsk (136,000 inhabitants) and Tomsk (117,000), both in Western Siberia, which is the most densely settled part, Irkutsk (130,000) in Central Siberia, and Vladivostok (100,000 in Eastern Siberia.

The natural increase (by births) of the population is very small, and it has grown rather by immigration. The influx of Chinese, Japanese and Koreans into the Eastern Provinces is valuable from the standpoint of industrial development, since the Russian immigrants are attached to the land, and the aboriginal tribes are negligible for this purpose. It is open, however, to objection (as in Australia) for political reasons.

**Position and Climate.**—Siberia stretches right across Asia for a distance of 6,000 miles, and the greater part of it lies north of latitude  $50^{\circ}$  N. Hence the climate is of the so-called Continental type, marked by extremes of heat and cold in summer and winter, a moderate summer rainfall, and an autumn snowfall. The prevailing winds are westerly. The most intense winter cold is experienced in the north-east, in the Lower Lena basin, a region practically uninhabited. Practically the whole country has a January average temperature of over  $32^{\circ}$  below freezing point, so that rivers and lakes are all frozen, and coasts are ice-bound.

The most important modifications of this climate are as follows. In the north, there is a large area within the Arctic Circle, where the winter is very prolonged, and genial weather is limited to a few weeks at midsummer. This region is negligible from the economic standpoint. In the south-west (the Steppe Provinces) the hottest summers and the lowest rainfall occur, the climate changing from semi-arid to arid with increasing distance south. In the east, the monsoon wind system occurs, and the winter wind from the interior renders the coastal belt unduly cold, while the summer winds moderate the expected heat.

**General Physical Conditions.**—Western Siberia is a vast plain drained to the Arctic Ocean by the great rivers Ob and Yenesei. The former has a very important navigable tributary, the Irtysh, which drains the Steppe Provinces, the latter is joined from the east by the upper Tunguska, flowing out of Lake Baikal.

Central Siberia is a rolling country, rising to mountains in the south and round Lake Baikal, near which lake the Lena takes its rise, to flow first north-east, and then north to the Arctic Ocean.

Eastern Siberia is also mountainous, but is trenched by the broad valleys of the Amur and its tributary the Ussuri.

Siberia is most unfortunate in her rivers, great though they are. The

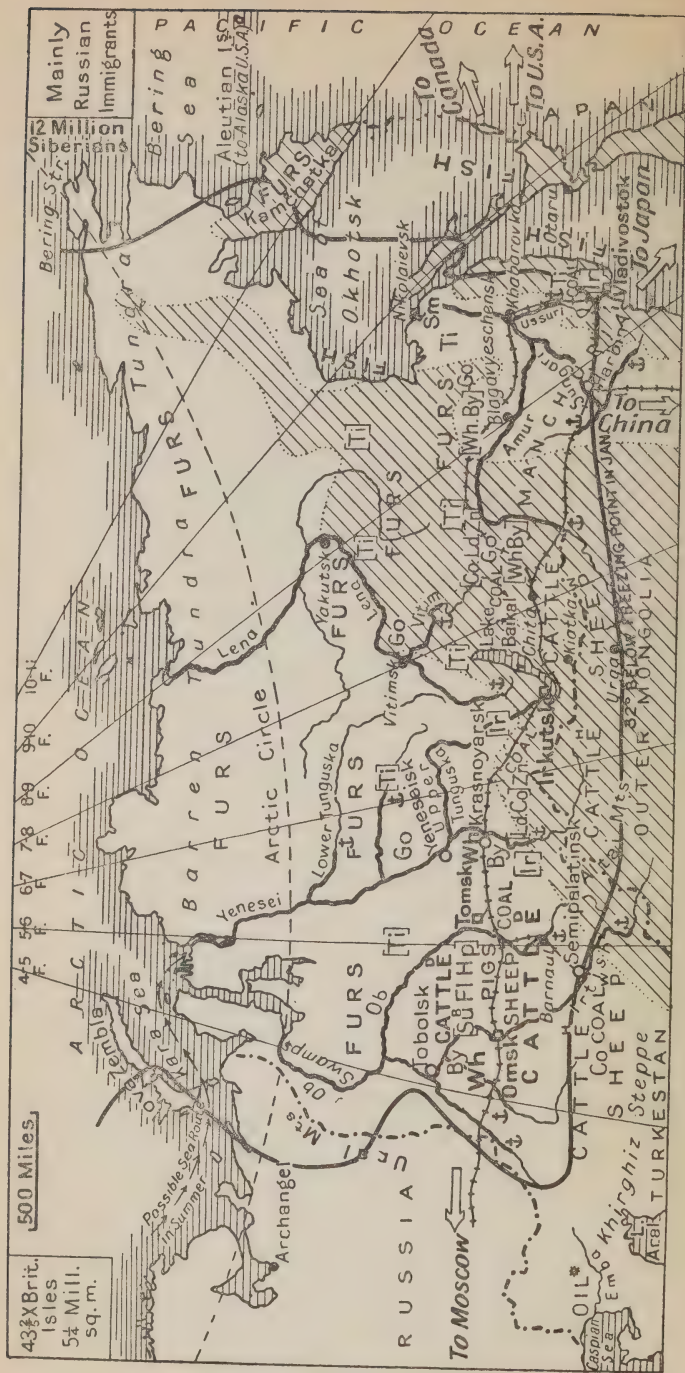


FIG. 118.—SIBERIA.

lower reaches of the Ob, Yenesei and Lena are still frozen when the upper reaches, being farther south, thaw in spring. Consequently the waters are dammed up and disastrous floods result. The lower Ob in particular

flowing as it does through a nearly level region, divides into a maze of intricate channels winding through a vast swamp. The Yenesei offers a more favourable waterway, but to reach its estuary from Europe ships must pass through

## Siberia.

the Kara Strait and Kara Sea, which are often encumbered by ice-floes even in summer, and at best are open for only a few weeks. The Amur again, heading in its middle course for the Japan Sea, makes an elbow bend in latitude  $47^{\circ}$  and turns north-eastwards to enter finally the remote Sea of Okhotsk. The cold winters determine that the eastern shores are ice-bound each year, and they are, moreover, bounded by high mountains with the fortunate exception that the Ussuri valley opens an easy route to the bay on which Vladivostok stands.

To the south of the frozen plains of the tundra, Siberia is clothed with a vast forest, the *taiga*, consisting chiefly of coniferous trees—pine, spruce, larch and fir. In the centre and east it extends to the mountains, where there is an admixture of such trees as beech, oak and maple. In the south-west, at about latitude  $55^{\circ}$ – $58^{\circ}$  N., this forest thins out, the soil and climate favouring the growth of a rich prairie or grass-steppe, with scattered woodland areas.

Farther south still, the increasing heat and diminishing rainfall result in a scantier vegetation of coarse grasses and small-leaved, woody shrubs and trees, such as the saxaul and tamarisk, varied by poplar groves and reed swamps along the watercourses. Beyond the plains, along the foothills of the Altai and other mountains, there is another belt of rich park-like steppe, and higher up the mountains there are forests and meadows such as are familiar in the European Alps.

From the physical standpoint Siberia and Canada have much in common : there are the same forest products and the same possible range and wealth of crops. But there is in Siberia no parallel to the Great Lakes and St. Lawrence system, opening a highway into the country and moderating the rigours of the climate, nor has Siberia as neighbour a great progressive country like the United States, to name only two of the factors favourably affecting the development of Canada.

**Human and Economic Development.**—Siberia is a country of vast agricultural resources, but before the opening up of the railway the farm produce was all consumed locally, since only the valuable *furs* and *gold* could bear the heavy cost of road transport. Furs are still a very important article of trade, being collected during the winter months by native, half-breed and Russian hunters, and sold to merchants in the large towns, whence they are sent to the markets of Western Europe and America. They include squirrel, fox, ermine, hare and kolinski.

**Gold** is found in many parts of Siberia, especially in Trans-Baikalia, where mining is the leading industry. The Yeneseisk, Vitimsk, and Amur fields are the most important, and the total yield is normally 1 million ozs. **Copper** comes chiefly from the Spassky (Akmolinsk) smelting works on the Kirghiz Steppes, but there are large untouched reserves in the Altai. In the latter region **Zinc** and **Lead** are also present in great abundance, and zinc is smelted on the neighbouring coal-field. The Nerchinsk mineral region, in the upper Amur basin, is also rich in copper, zinc, and lead. **Coal** is mined chiefly for the railway, but with improved transport facilities the eastern deposits would be available for shipping at Vladivostok, and the neighbouring iron ore could be marketed in Japan. The five chief basins are to the south of Tomsk ; on the Kirghiz Steppes ; to the west of Irkutsk ; in Trans-Baikalia ; and in the Maritime Province. The output of  $3\frac{1}{2}$  million tons fell to under 2 million tons after the Revolution. At Emba-Uralsk, on the steppes



**Siberia.**

to the north-east of the Caspian Sea, there is a productive *oil*-field of which the resources are equal to those of Baku ( $1\frac{3}{4}$  million barrels in 1917).

*Lumbering* is not developed, except for local needs (fuel, building), owing to the fact that the rivers do not serve to transport the timber to European markets. The forests of Amuria will, however, eventually be exploited to supply the market in industrial Japan for timber and paper pulp. Nikolaievsk-on-Amur has already some sawmills, and fishing and salmon-canning industries besides. This port lies almost opposite Prince Rupert in Canada, with similar activities, but the latter is always ice-free.

With the coming of the railroad (1891–1905) agriculture became the leading industry, and about 10 millions of the total inhabitants of Siberia live in the Western and Steppe Provinces, where on the rich prairies a second “black earth” region is found. **Cereals** occupy the largest acreage ( $26\frac{1}{2}$  millions), yielding over 300 million bushels, principally wheat, barley and rye. Potatoes and sugar beet, flax and hemp, are also grown, and agriculture is combined with **cattle**-rearing, especially dairying. In 1913, 70,000 tons of **butter** were exported, besides millions of **eggs**, and a cheese and bacon industry is developing. The figures for 1914 give: Cattle,  $6\frac{1}{2}$  millions; horses, 5 millions; sheep, 6 millions; pigs,  $1\frac{1}{2}$  millions.

Omsk and Tobolsk on the Irtysh, Tomsk on a tributary of the Ob, Krasnoyarsk and Yeneseisk on the Yenesei, are all collecting centres for farm produce, and distributing centres for imported manufactured goods and machinery. They have, besides, large flour-mills, breweries, tanneries and distilleries (potato spirit).

To the south of the rich agricultural belt, the poorer steppes are still mainly inhabited by nomad Kirghiz, who migrate from the plains to the hill and mountain pastures according to the season. They have large flocks of sheep and herds of cattle, of which they sell the wool and hides. The chief entrepôt for this pastoral region is Semipalatinsk, on the upper Irtysh, to which a branch of the railway runs, via Barnaul.

Irkutsk, on Lake Baikal, is an important educational and administrative centre, besides having large railway shops, and serving as an entrepôt for distributing necessities to the mining districts. Chita, in Trans-Baikalia, is the centre of a fertile agricultural valley, and the junction for the direct railway route via Manchuria. Blagovyeschensk, a river port on the Amur, is also an agricultural centre in the little-developed Eastern Province. Vladivostok, the railway terminus, is the gateway for Japanese and American produce, and the chief entrepôt for Eastern Siberia.

**Trade Relations.**—Siberia affords a market for cottons, which can be supplied by Russia and Japan, and for woollens, in which the United States will enter into competition with Germany and Britain. Machinery, too, is in great demand, and although the main supplies must come from Britain, the United States and Germany, Sweden is coming forward with up-to-date dairy machinery, lumbering plant and electrical installations, while Canada can produce types of agricultural machines adapted to a similar region. It is significant that the Royal Bank of Canada has opened a branch at Vladivostok, as has the Yokohama Specie Bank. Tea is in great demand, and comes mainly from China, while sugar and oil are normally supplied by Russia. Fertilisers find a ready market.

A caravan route runs south to Kiakhta, on the Mongolian frontier, and thence due south to Urga, the principal entrepôt of Mongolia. The

## Sierra Leone.

Mongolians and Kalmucks have millions of camels, horses, cattle and sheep, and a trade in wool, hair, hides and live stock could be developed, in return for grain and small manufactured articles. The direct rail route to Vladivostok passes through Chinese Manchuria, and consequently Harbin, where the South Manchurian railways are linked with this west to east line, is a very important entrepôt for East Siberian trade. There is also a circuitous (all Siberian) route by the Amur and Ussuri valleys, from which a branch will run to Nikolaievsk. Vladivostok is a fine, land-locked harbour, kept open by ice-breakers. Nikolaievsk is a river harbour, and though available for the largest vessels, is ice-bound for six months of the year.

The city of Tomsk is almost equidistant from Vladivostok and the Black Sea and Baltic ports, so that failing the establishment of a route through Arctic waters and up the Yenesei, the natural relations of Central and Western Siberia will be with the Pacific countries rather than with Western Europe.

According to a recent estimate (1920), Japan supplies one-half, and China one-quarter of Siberia's needs, while the United States is next in importance, but these figures must alter when the western entry into the country is once more open, especially as it is in Europe that Siberian farm produce is now in greatest demand.

**General Information.**—The unit of currency is the *rouble*, normally worth 2s. 1½*d.* The metric system of weights and measures is in use, but the *poond* of 36 lbs. is also commonly employed. The Hong-Kong and Shanghai Banking Corporation operates in Vladivostok, while the Russian Bank for Foreign Trade and the Russian Commercial and Industrial Bank, both with London offices, do business in Western Siberia. There is a British Consul at Vladivostok.

## SICILY

See *Italy*, p. 296.

## SIERRA LEONE

**Area and Population.**—The British Colony and Protectorate of Sierra Leone has an area of 31,000 square miles (slightly larger than Scotland), and a population of 1·4 millions, chiefly negroes, but including between 700 and 800 Europeans. The administration is in the hands of a Governor. The chief town is Freetown, with a population of 34,000. It is the most important harbour in West Africa, is the headquarters of H.M. Forces in West Africa, and is a second-class imperial coaling station. The total foreign trade in merchandise was £3½ millions before the War, i.e. £2 10s. per head of population, and the figure rose to £4·2 millions in 1919. This is very much smaller than the per capita trade in other British West African colonies, but there are great possibilities of development if transport facilities can be improved. Almost everywhere throughout the country the tsetse fly prohibits the use of draught animals, so that motor roads and railways are all-important. The "town" natives usually speak some

## Sierra Leone.

English, and a few thousands of children are under instruction at missionary, private or Mohammedan schools. The death rate, and especially the infant mortality, is very high.

### Position, Climate and General Physical Conditions.

—Sierra Leone lies on the West African Coast, and has a south-western outlook towards the Atlantic. Lying between 6° and 10° N. of the

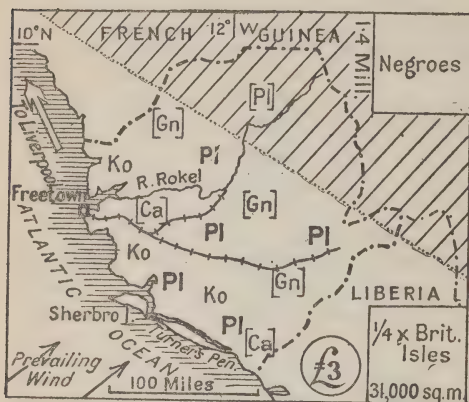


FIG. 119.—SIERRA LEONE.

Equator (the latitude of Ceylon), it has a very hot climate which is most extreme in the dry spring months, is slightly cooler but very humid and unhealthy during the long rainy season (May to November), and is pleasantest during the dry winter months, although still very hot. The rains are brought by south-west winds blowing directly on-shore, and as the country is hilly or mountainous throughout, the downpours are very heavy. Great improvement in the health of European residents has resulted from her opening up by rail of the higher

lying interior, and the establishment of a residential suburb of Freetown at an elevation of 900 ft. upon a mountain six miles away. The mosquitoes, whose bite spreads malaria and yellow fever, breed in low, swampy ground, and in stagnant water, and the presence of a preponderating native population unused to elementary sanitary precautions renders the task of stamping out these and other diseases practically impossible.

The country is forested throughout, and the trees include coco-nut, fan-palms, oil palms, bananas, silk-cotton trees, bread-fruit and many other tropical species. As a rule the forests are of an open type, but dense mangrove swamps fringe the shore and the tidal waterways. The principal river is the Rokel, with a magnificent estuary, on which Freetown stands. The sheltered waterway behind Sherbro' Island and the sandspit known as Turner's Peninsula, with the rivers that feed it, is also an important highway of local commerce.

**Human and Economic Conditions.**—The negro tribes of Sierra Leone grow rice, cassava and ground-nuts, besides bananas for their own use. They also rear poultry and goats. The chief article of trade, however, is not farm produce, but the **palm-kernels** and **palm-oil** obtained from the oil-palm, which grows nowhere in such abundance as in this colony. Great forests of the palm remain untouched in the interior, since there is a limit to the distance over which it is profitable to transport the oil and kernels by native porters. The export was valued at over £1½ millions in 1919, and represented 60 per cent. of the total exports. Next in importance is the **kola-nut**, which grows wild and is also cultivated, and of which shipments worth over £300,000 go annually to Senegal and Gambia for native consumption.



## Sin-Kiang.

The cultivation of *ground-nuts* as a money crop is commercially possible, and with some European supervision the natives could grow *cacao*, but at present the ease with which the people can supply their wants by gathering the fruit of the oil palm is a hindrance to development in other directions. *Piassava* (for brushes) is very abundant, but very little is exported.

**Trade Relations.**—The bulk of the palm oil goes to the United Kingdom, and over 70 per cent. of the imports are from the same source, although part of this is entrepôt trade. Cotton piece goods are in greatest demand (nearly £½ million), followed by coal. Tobacco, spirits and hardware are next in importance. There are about 330 miles of railway in the country, the main line running eastwards from Freetown almost to the Liberian frontier. The lines were built by Government and are a source of revenue. Extensions are contemplated. Freetown has a safe and commodious harbour, but all goods must be lightered.

**General Information.**—The Bank of British West Africa and the Colonial Bank have branches at Freetown. There is a special West African silver currency in use, and British coins are also in circulation, besides French five-franc pieces, and British and Nigerian currency notes. There is a weekly mail from Liverpool to Freetown, the time taken being 11 days. The Colonial Secretary at Lagos acts as Imperial Trade Correspondent.

## SILESIA

See **German Republic**, p. 237.

## SINGAPORE

See **Malaya**, p. 328.

## SIN-KIANG

**Area and Population.**—Sin-Kiang or the New Dominion, is an outlying Territory of China, administered by a Governor. It comprises the seven districts of Urumchi, Barkul, Kobdo, the Altai, Ku-Cheng, Aksu, and Kashgar, having a total area of 460,000 square miles and a population estimated at 2¼ millions. The external trade is very small, barely £1 million in 1920, or under 10s. a head. The various native peoples are racially akin to the Turks, and are Mohammedans, the Turki language being spoken. There is also a considerable population of immigrant Chinese. The most important towns are Kashgar (60,000 inhabitants), and Yarkand, which is slightly larger.

**Position, Climate and General Physical Conditions.**  
—Sin-kiang lies between 36° and 46° N. latitude in the centre of Asia, and to the east of the Pamirs. The chief physical divisions are the Tarim Basin, watered by the river of that name, and bordered by the Kuen Lun and Tian Shan Mountains; the upper Ili valley, also mountain bordered, and opening to the Siberian steppes; the Dsungarian Basin, isolated by mountains from the rest of the Province, and lying on the border of Mon-

**Sin-Kiang.**

golia. The climate is one of great extremes of temperature, while rain falls only on the high mountain chains, so that dust storms are frequent. Much of the country is desert, the chief water supply being that brought down by the mountain streams, which flood the ground in summer. Poplars and willows border the water courses, but apart from these the vegetation is that of a poor steppe, with saxaul, tamarisk and other shrubs in place of trees.

**Human and Economic Conditions.**—Over the greater part of the country pastoral occupations alone are possible, and large numbers of cattle, sheep, goats, camels and horses are reared, so that *hides, skins and wool* are articles of commerce. Wherever, however, the mountain streams

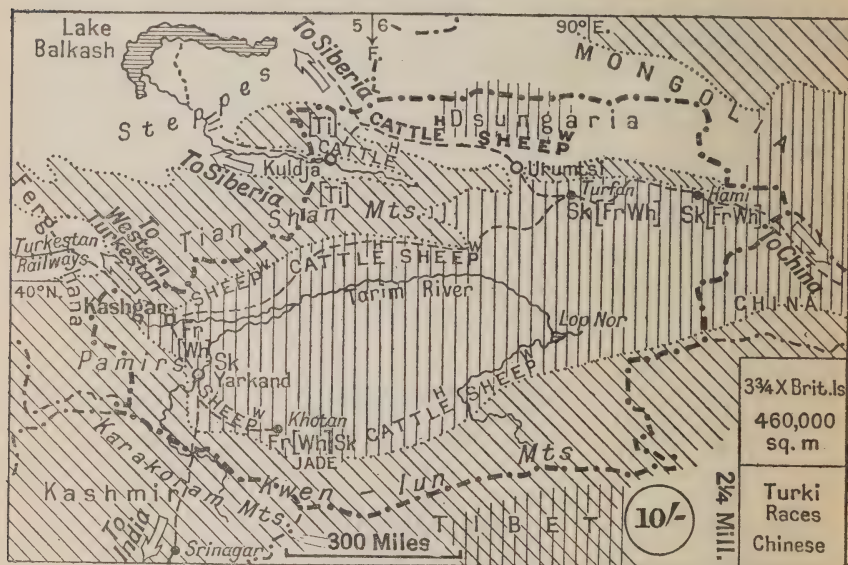


FIG. 120.—SIN-KIANG.

and rivers allow of irrigation, the ground is cultivated, such cereals as *wheat* and *barley* doing well, besides an abundance of orchard and other *fruits*, including apricots, peaches, grapes, nuts, melons, and so forth. The mulberry does well, and *silk* is largely cultivated, forming an article of export. *Charas* (hemp) is however the commodity which has the greatest export value. A little *cotton*, *tobacco* and *opium* are also grown. Each town and village is, in fact, set in an oasis of fields and orchards, those of Turfan and Hami being particularly productive.

The native textile industries are of importance, including the making of silk and wool *carpets*, and felts, besides silk, wool and cotton fabrics which go far to supply the local market.

A little gold, silver and jade are mined, and there is said to be coal in the Ili valley, besides many other unexploited minerals.

**Trade Relations and General Information.**—Trans-

## **Solomon Islands, British.**

port is by camel or pony caravan, or by bullock waggon. The chief trade centres are Yarkand and Khotan (the latter famous for jade) for trade with Kashmir and India; Kashgar, for trade with Western Turkestan (where is the nearest rail-head); Kuldja on the Ili, and Urumchi in Dsungaria (the latter a market for furs and skins) for trade with the Siberian steppes. In return for charas, carpets, felts, hides and skins, and raw silk, Indian and Chinese drugs, tea, dyes, and piece goods are imported. Paints and colours, metals and a little hardware are also articles of import. Chinese and Indian, besides native, weights, measures and currency are in use. There is a British Consul at Kashgar.

## **SOLOMON ISLANDS, BRITISH**

**Area and Population.**—With the British Solomon Islands (a Protectorate) may be included for purposes of description the former German Solomon Islands for which Australia holds a mandate. The total area of the group (Buka, Bougainville, Guadalcanar, Malaita, San Cristoval, New Georgia, Choiseul, and many smaller islets) is about 13,400 square miles, and the population includes 167,000 natives and about 700 Europeans. The foreign trade is worth only about £500,000, but it is likely immediately to increase. The principal harbour is Kieta on Bougainville.<sup>1</sup>

**General Physical Conditions.**—The Solomon group is a series of islands aligned in two chains running from north-west to south-east, about 500 miles west of New Guinea (Papua). The islands are mountainous, and contain several active volcanoes. Hence they have a very fertile soil, and as they lie between parallels 5° and 11° S., the climate is uniformly hot, though not excessively so, and there are abundant tropical rains during the greater part of the year. The vegetation is luxuriant, including sandal-wood, palms (especially the coco-nut), bread-fruit trees, bananas and so forth.

**Human and Economic Conditions.**—The Solomon Islanders cultivate the land for their own needs, growing coco-nuts, sweet potatoes, taro, yams, and rearing pigs and poultry. They are of the vigorous Melanesian race, and are available as plantation labourers, although recruiting is expensive, and the ordinances regulating their employment are hampering. In Bougainville (formerly German) large areas have been planted with **rubber**, while in the Protectorate **coco-nut** plantations, which entail less labour, are the leading enterprise (30,000 acres). With the latter industry *cattle*-rearing could be combined, ensuring a local meat and milk supply, while it should be possible to teach the natives to grow *cotton* on their own holdings. *Sugar* is another commodity which might be grown on the plantations as successfully as in Fiji, while the small *banana* and *pineapple* industry is open to development. The *fruit* industry of the Pacific only awaits organization, for there are ready markets in the countries on either shore of the Ocean.

Australian Commonwealth bank notes are the chief medium of exchange in the Solomon Islands. The Resident Commissioner has his headquarters at Tulagi.

<sup>1</sup> For Map see New Guinea.



**SOMALILAND, FRENCH**

See **French Somaliland**, p. 230.

**SOMALILAND, ITALIAN**

See **Italian Somaliland**, p. 295.

**SOMALILAND PROTECTORATE**

**Area and Population.**—The British Somali Coast is a Protectorate, administered by a Governor who is also Commander-in-Chief. The area is about 68,000 square miles, and the population 300,000. The total trade, which is in native hands, is £600,000. The inhabitants are Somalis and Arabs, who are Mohammedans. The Protectorate is mainly of strategic importance.

**Position and General Conditions.**—British Somaliland lies along the north coast of the Horn of Africa, and on the southern shore of the Gulf of Aden. It is bordered by French and Italian Somaliland to the west and east respectively, and to the south by Abyssinia. The country lies in latitude 10° N., in the lee of the Abyssinian Mountains, and is very hot and dry. The vegetation consists of scanty pasture and shrubs, which yield **gums**. Little agriculture is possible, and the inhabitants are pastoral nomads, rearing cattle, sheep and camels. *Hides* and *skins* and live *animals* are exported. The chief trade is through the port of Berbera, with Aden and India, native vessels coming and going with the monsoons, so that at certain seasons there is a large assembly of traders at the port.

**General Information.**—The basis of the currency is the Indian rupee. Bank of England and Government of India notes are also in circulation. There is a wireless station at Berbera.

**SOUTH AFRICA, UNION OF**

See **British South Africa**, p. 105.

**SOUTH AUSTRALIA**

See **Australia**, p. 34.

**SOUTH WEST AFRICA**

See **British South Africa**, p. 105.

## SPAIN

**Area and Population.**—The Kingdom of Spain has an area of 190,000 square miles (continental Spain only), i.e. it is about nine-tenths the size of France. The population is nearly 21 millions, or just over half that of the latter country, and considerably less than that of the much smaller Mediterranean peninsula of Italy. The population increases only slowly, as there is normally a very large emigration (nearly 200,000 persons



FIG. 121.—SPAIN.

in 1912) to Latin America, especially to Argentina and Cuba. Half of these emigrants are workers on the land, driven abroad by the press of poverty. Education has been neglected, and as recently as 1910 over 60 per cent. of the population were illiterate, although latterly some improvement has been effected. The State religion is Roman Catholic, to which all but a few thousands adhere. The cities of importance include the capital, Madrid (650,000 inhabitants); the leading seaport and industrial centre, Barcelona (619,000 inhabitants); the seaport Valencia (nearly 250,000

inhabitants), besides Seville, Malaga, Murcia, Zaragoza, Cartagena and Bilbao, each with 100,000 or more. In addition there are about a dozen towns with between 50,000 and 100,000 people, including Granada, Valladolid Cordova, Santander, and Cadiz. Actually, however, the inhabitants of these large towns are engaged in rural occupations, going out each day into the country to their small orchards, gardens and vineyards. In 1913 the foreign trade of Spain had reached £87 millions, or rather more than £4 a head, a very low figure as compared to that in other western European countries, or even in Italy. In 1919, in spite of high prices, the figure was only £95½ millions, or nearly £5 a head, which represented a big advance on the "slump" year of 1918, but was less than the £106 million figure touched both in 1916 and 1917.

The influenza epidemic of 1918 wrought great havoc in Spain, there being actually an excess of deaths over births, consequently the trade figures for that year were unusually low. But it is undoubtedly the case that the War has given a stimulus to enterprise, and it should be noted that American business men are paying very considerable attention to Spain. A large amount of British capital is invested in the country, and Britain receives from Spain far more goods than she sells there.

**Position and Climate.**—Spain stretches from latitude 36° N. (the latitude of Tokio and of North Carolina) to latitude 43½° N. (the latitude of Toronto). It has a sea frontier of nearly 1,000 miles to the Atlantic divided into two portions by Portugal, and one of over 1,000 miles to the Mediterranean. It has a land frontier of some 600 miles to Portugal, and another of 400 miles to France. The climate varies considerably from one part of the country to another. In the north-west it is decidedly of the type met with in Brittany and Cornwall—mild and wet, although, of course, not so cool as in the more northerly peninsulas. In the south-west, south-east and east, it is of the "Mediterranean" type—with very hot, dry, sunny summers, and most rain during the winter months, which are usually warm. The south-west has the mildest winter, and the south-east the hottest summer of these marginal regions. The Guadalquivir valley, which forms the heart of the Province of Andalusia, lies open to the south-west, i.e. to Atlantic influences, and hence has an admirable climate from an agricultural standpoint. The interior of the country has far more adverse climate conditions. It is an elevated plateau, and suffers from great extremes of heat and cold, with, in addition, a rainfall that is far from abundant. Owing to the dry atmosphere the sun temperature may be exceedingly high, while the shade temperatures are low, and, according to the season, winds piercingly cold or dust-laden sweep across the plateau. Madrid is in a particularly exposed situation, and has a correspondingly unpleasant climate.

**General Physical Conditions.**—The structure of the Iberian Peninsula, of which Spain forms the greater part, is relatively simple. A wedge-shaped block of ancient rocks, having its base to the Atlantic and its apex to the Mediterranean, forms the core of the plateau. It slopes westward, and is drained by the rivers Douro, Tagus and Guadiana, which have cut deep gorges into the plateau, and pass from Spain into Portugal through almost impassable ravines. The north-western corner of Spain (Galicia) is built of granite—much weathered by the heavy rains—and here is a hilly country, with a deeply indented coast, and a typical seafaring population.



Bordering the Bay of Biscay, and forming a straight coast, is the chain of the Cantabrian Mountains, which at its eastern end diminishes in elevation, and thus allows an easy passage from Spain to France before the lofty Pyrenean chain commences. The Pyrenees form an effective land-boundary against France, since they rise with considerable abruptness, and have no low passes. Hence the railways are forced to pass between the terminal spurs and the sea at either end of the chain. Between the Pyrenees and the edge of the triangular block already mentioned, lies the low and wide Ebro valley, which is cut off from the Mediterranean coast by a transverse chain of mountains through which the river has cut a narrow gorge. To the south of the same block lies the broad Guadalquivir valley, bordered to the south-east by yet another high mountain chain—the Sierra Nevada. Generally speaking, the central block is associated with metalliferous veins and ores, while on its margin there are coal measures, and in the mountain chains, especially the Cantabrian Mountains, an abundance of iron ore.

Only in the moist north-west and on the Sierras is Spain well wooded, a tree of economic importance being the cork-oak. Elsewhere, especially on the drier parts of the plateau, and in the sheltered Ebro valley, vegetation is scanty and such typical semi-desert plants as esparto-grass, aloes, cactus and prickly-pear find the climate congenial.

**Human and Economic Conditions.**—Spain is essentially an agricultural country, the number of persons employed on the land being over four times as great as the number employed in industry. There are a large number of petty proprietors, and only about 11 per cent. of the soil is classed as unproductive. Owing to the dry climate, vineyards and orchards take on a great importance, since the deep-rooted vines and trees can withstand the drought. The proportions are about one-third agriculture, nearly one-fourth fruits, one-fortieth vineyards, and one-thirtieth olive groves. Irrigation is, however, desirable, both for the orange groves and fruit orchards, and for summer crops. The Ebro and Guadalquivir valleys are both extensively irrigated, and the *huertas* or terraced gardens of the east and south-east are famous. Among corn crops **wheat** and **barley**, with their small demand for rain, are of first importance, especially in such areas as the plain of Old Castile, round Valladolid and Burgos, while in the moister regions some *maize* is grown, and in the irrigated fields a little *rice*. *Beetroot* is widely grown, especially on the irrigated lands in the Ebro and Guadalquivir basins, while in the south-east the *sugar-cane* is cultivated. The output of beet-sugar (with Zaragoza as the chief centre) in 1918 was 140,000 tons, and that of cane-sugar (with Granada and Malaga as chief centres) was 5,700 tons. *Tobacco* is very generally grown, and is a State monopoly. Various *pulses* are also of great local importance, since they enter largely into the diet of the people. Other vegetable staples are **cork**, and **esparto** grass, the latter growing wild on poor, dry soils unfit for cultivation. The *silk*-worm is reared in the south-east, although the industry is not a flourishing one.

Generally speaking, however, Spanish field crops are of local importance only, and it is to the products of their vineyards and orchards that land-owners look for a money crop. The 8 million pounds of grapes harvested yield both fresh fruit (cheap table **grapes**) and dried fruit (**raisins**) for export, besides various red and white **wines**, including sherry and malaga. Wines account for 13 per cent. of the total of exports and are the largest single

**Spain.**

item. The **olive** is also very important, although it is limited to the south and east. Olive-oil is an export of very considerable value, finding a large market, e.g. in the United States, while it is also used in the important local industry of sardine preserving. Spanish wines are not greatly esteemed in Britain, and the leading food-stuff imported into the latter country is **oranges**, which in 1919 touched the unusually high figure of £8½ millions, prices being exceptionally high. The province of Valencia has the largest acreage under orange groves. Minor crops which go to swell an important total are hazel **nuts**, chestnuts and walnuts, while Spanish **onions** alone reached Great Britain in 1917 to the value of £1½ millions, and in 1919 to the value of £2 millions. The fact that over 24 per cent. of the productive lands of Spain are classed as natural pastures indicates the importance of the animal industries. The pastures are, however, in the main arid, so that **sheep** take the lead as regards numbers, especially on the plateau, there being about 18 millions in all, mainly of breeds important for their wool, as is usual in a dry climate. There are also a large number of **goats**, roughly 4 millions, which can browse on the coarse herbs and shrubs of the poorest hill-sides. Horned **cattle** number only 3 millions, and are most numerous in the moister north and north-west, and on the Cantabrian and Pyrenean Mountain pastures. **Pigs** are as numerous as goats, and are depastured in the woods and forests. **Mules** and **asses** number 1 million in each case, as against only half a million horses, the more hardy and coarser feeding animals being more suitable to the climate and to the rough and often mountainous roads of the country. The **wool** and **hair** of the sheep and goats form articles of export, and are also employed in home manufactures.

The fisheries of Spain occupy 86,000 men, and the catch is worth about £3 millions. **Sardines** and **tunny** are the most important fish, and there is a considerable canning industry.

In addition to her orchards and gardens, the **minerals** of Spain are a source of considerable wealth and commercial activity. These include about 7 million tons of **coal** in 1918 (as compared to 4 million tons in 1913), which is mainly consumed locally, and 6 million tons of **iron** ore and pyrites, which go chiefly to Great Britain, the value (in the latter country) being £10 millions in 1917 and £11 millions in 1918, but falling to £8½ millions in 1919, when the output of Spanish mines in general slackened. France and Germany are also purchasers. The chief mining areas are in the north behind Bilbao, the leading exporting centre, and behind the ports of Gijon (in the Oviedo district) and Santander. There are also mines near Seville, in the Sierra Morena, which forms the southern edge of the plateau. The Bilbao ores are of the highest quality, consisting of low phosphorus hematites and spathic ore which is calcined before export. The reserves are large. **Copper** is next in importance to iron, the output from the famous Rio Tinto mines to the south-west of the Sierra Morena being over a million tons. Spain supplies about 10 per cent. of the world's copper, the port for the mines being Huelva. **Lead** is of practically equal value to copper (about £2½ millions at the mine), and is found at Linares to the south-east of the Sierra Morena. A considerable quantity is sent to Britain. **Zinc**, **sulphur**, **quicksilver** (at Almaden on the plateau, representing 30 per cent. of the world's supply), **manganese** and **wolfram** together have a value of about £1 million at the mine, and of these, quicksilver, zinc ore and wolfram are imported into the British Isles, the first named largely for re-export. Large **potash** deposits have been located



## Spain.

in the province of Barcelona, but restrictive legislation and the competition of cheap German potash prevent their development.

Although much mineral ore is exported from Spain as such, the refining and smelting industries and the chemical industry have made considerable progress, and the output has reached over £32 millions. *Pig and bar iron* and *steel lead* in value, followed by *coke*, refined *lead*, refined and blister *copper*, *superphosphates*, *sulphuric acid*, Portland cement, copper sulphate and refined silver.

Although playing a less important part in external trade, the *textile* industries of Spain occupy twice as many workpeople as the metallurgical industries, and the export of **cotton** manufactures is in excess of the import. The principal centre is at Barcelona, where water-power from the Pyrenees is largely employed to drive the mills. The total number of spindles is over 2½ millions. *Woollen* industries are also carried on in the same district, but since the raw material can be locally obtained, many woollen factories are scattered up and down the country in addition.

A considerable **paper** industry, based on rags and esparto grass in addition to imported pulp, has grown up in Catalonia, which is in fact the pre-eminent industrial region of Spain. The manufacture of **corks** is also one of value, the output in 1917 being worth over £2 millions. **Glass-making** should likewise be noticed. There is a very active and important ship-building industry, centred chiefly in Bilbao. The available water-power of Spain is estimated at 6 million horse-power, derived mainly from the Pyrenees and Cantabrian Mountains, since elsewhere the rivers are very low in summer. The progress made is indicated by the fact that in 1920, 620,000 h.p. was used, as against 281,000 h.p. in 1914.

**Trade Relations.**—In spite of the fact that the manufactures of Spain are well established, it is broadly the case that the country imports manufactured goods in exchange for minerals, metals, and the special food-stuffs characteristic of the Mediterranean countries. Hence her natural trade relations are with the great manufacturing countries, Britain, Germany, the U.S.A. and France. Britain has always taken a leading part as regards volume of trade, but a large proportion of this trade has represented the exchange of Spanish iron ore for coal, pig iron and wrought iron. The conditions brought about by the War led to an increase of production of Spanish coal, and of the local smelting of iron. Hence this branch of trade is likely rather to decline than to develop, and more attention must be paid to marketing British manufactures—machinery, fine cottons and woollens, electrical apparatus and fittings, chemicals, etc.—as an offset to the return of fruits, nuts, refined metals and so on. Previous to the War, Spain bought largely of German manufactured goods, although the return trade was somewhat small, since Germany could buy the typical Mediterranean products more easily from Italy. With the United States, too, the trade is one-sided, since that country, while sending out grain and cotton, is self-supplying as regards the majority of metals, and as regards oranges and raisins, and thus imports from Spain only olive oil, sardines and other specialised manufactured goods. In the case of France, offering in addition to wines, silks and motor-cars, only a limited range of manufactured goods, the balance is normally in the opposite sense, and the excess of Spanish goods imported over French goods sent to Spain has very greatly increased during the recent abnormal years. Outside Europe, Spain has a natural



**Spitzbergen.**

market for certain of her own manufactures (cottons, soap, cigarettes, etc.) in Morocco, although handicapped by the fact that the ports in the Spanish zone lack rail connections with the interior. Lying farther afield are the Spanish-American countries, where the bond created by a common language and common race gives the Spanish merchant a certain advantage. This is now being pushed, especially in Cuba, but in all these countries, the United States, with her vast resources and superior organisation, is a formidable rival.

As the port for Catalonia, the leading industrial region of Spain, Barcelona handles the highest proportion of external trade, especially as regards imports. Vessels drawing 30 ft. can lie alongside the quays. Bilbao is, however, far more favourably placed as regards British and transatlantic commerce, although greatly handicapped by its mountainous hinterland, by poor communications with the capital, and by the fact that for large vessels there is anchorage only. A free zone has been established at this port, where goods can be warehoused and can undergo processes (such as oil extraction, tanning) which increase the value of the article without altering its nature. Valencia and Malaga serve the fruit, olive, and wine producing regions of the east and south-east, while Cadiz, on the coast, and Seville, on the Guadalquivir, are the ports for Andalusia. At Cadiz there is a free zone, but for large vessels there is again anchorage only.

Coruña and Vigo in the extreme north-west are convenient mail and passenger stations for Atlantic vessels, both having sheltered, deep-water harbours.

**General Information.**—The unit of currency in Spain is the *peseta*, equivalent to the franc and worth nominally 27–28 to the pound sterling. There is a gold standard, but gold is not in general circulation, and none has been coined since 1907. Notes are issued under certain regulations by the Bank of Spain, which has London offices. The chief foreign banking establishments are the Anglo-South American Bank, London County, Westminster and Parr's Bank, and the Credit Lyonnais. The Royal Bank of Canada has a branch in Barcelona. The metric system of weights and measures is nominally in use, but the old units are widely current, including the *quintal* of 101 lb., the *libra* of 1.014 lb., the *arroba* for wine of  $3\frac{1}{2}$  imperial gallons, and for oil of  $2\frac{3}{4}$  gallons. Mails reach Spain from London in  $2\frac{1}{2}$  days.

There is a British Consul-General at Barcelona, besides Consuls at Bilbao, Madrid, Seville, Malaga, Vigo and Valencia, and Vice-Consuls at all ports and towns of any importance. Two Commercial Secretaries are attached to the British Legation.

**SPANISH GUINEA**

See **Fernando Po**, p. 209.

**SPITZBERGEN**

**Area and Population.**—The archipelago of Spitzbergen, for long a No Man's Land, has been assigned to Norway, the nearest territory on the mainland of Europe. The area of the group is estimated at about

## Spitzbergen.

25,000 square miles, the principal islands being West Spitzbergen, 12,000 square miles, North-East Island, Barents Island and Edge Island. The population consists of a few thousand miners, of whom a small proportion only remain during the winter months. The islands are important for their mineral wealth, and exploiting companies of various nationals have staked claims to particular areas, which claims are now legalised. British claims cover the largest area, while Norwegians, Swedes, Russians and Dutch have also an interest in the islands.

### Position, Physical Conditions and General Information.—

Spitzbergen lies between  $77^{\circ}$  and  $81^{\circ}$  north latitude, i.e. far within the Arctic circle, and as it is also an elevated country, much of the interior is covered with permanent snow-fields, and where the surface is exposed the vegetation is limited to mosses, lichens and a few Arctic plants. Reindeer, foxes and bears were formerly numerous, but have been ruthlessly hunted. The country is incapable of producing any crops or of supporting domestic animals, although the latter can survive the climate if fodder is provided. During the winter months there is complete darkness, and any permanent settlement must use electric light; on the other hand, during the summer months the sun does not set. The coast is deeply indented by branching fjords, which give easy access to the interior, there being deep water right up to the shore, which is overlooked by lofty cliffs. Ice Fjord, an opening on the west coast of West Spitzbergen, is the most important of these, as, owing to the relative warmth of the western waters (due to the Gulf Stream Drift) there is no pack ice off this coast in summer. Moreover, thick coal seams come down to the shores of Ice Fjord, where the chief mining villages are located. Lowe Sound, a little farther south, although not so large as Ice Fjord, has a length of over 50 miles, and on both these inlets there are important British claims.

**Coal** is the most important mineral found, and is that exploited on the largest scale. The resources are estimated in thousands of millions of tons, although at present the maximum output is 100,000 tons. Exploiting companies are, however, sanguine of a rapid increase. The coal is taken from the mine to the ship by a wire ropeway, and in general is mined by means of gently sloping adits. Shipments are only possible during June–October, inclusive. Norway is the chief market.



FIG. 122.—SPITZBERGEN.

**Sweden.**

Other resources are **iron ore**, in large quantity, that by Recherche Bay (out of Lowe Sound) being already opened up; **gypsum**, of great purity, occurring in wide bands along the cliffs; **marble** and ornamental *building stones*, which can be obtained from coast quarries. Communication is maintained by a Norwegian wireless installation at Green Harbour (on Ice Fjord), which is the postal centre. This harbour is  $2\frac{1}{2}$  to 3 days' sail from Norway, and 5 to 6 days from Aberdeen.

**STRAITS SETTLEMENTS**

See **Malaya**, p. 328.

**SUDAN, ANGLO-EGYPTIAN**

See **Anglo-Egyptian Sudan**, p. 13.

**SUDAN, FRENCH**

See **French West Africa**, p. 231.

**SUEZ CANAL**

See **Egypt**, p. 199.

**SUMATRA**

See **Dutch East Indies**, p. 189.

**SURINAM**

See **Dutch Guiana**, p. 195.

**SWEDEN**

**Area and Population.**—The Kingdom of Sweden has an area of 173,000 square miles (rather larger than the German Republic), and a population of a little over  $5\frac{3}{4}$  millions. The population increases but slowly, owing to the small excess of births, and to a steady emigration overseas, mainly to the United States. Apart from some thousands of Finns and Lapps, and about 22,000 foreigners, the population is entirely Swedish. Among the Swedes the percentage of illiterates is very low, and a large number of people speak German, French or English, in addition to their mother-tongue. The State religion is Protestant. There are only three considerable cities—Stockholm, the capital, with over 400,000 inhabitants, Göteborg, the western seaport, with 200,000, and Malmö, the southern seaport (opposite Germany and Copenhagen), with 112,000. Norrköping, a market and industrial centre, and a minor port, has barely 60,000, and in addition



## Sweden.

there are twenty-nine small towns with between 10,000 and 50,000 people. Upsala and Lund, the two ancient university cities, are each about half the size of Cambridge. The foreign trade of Sweden in 1914 had reached over £80 millions, or about £14 *per capita*, and in that year the normal excess of imports over exports was reversed. From 1918 to 1920 the figure averaged £229 millions (£40 *per capita*), of which £97 millions represented exports and £132 millions represented imports. This increase was due rather to enhanced prices than to any actual rise in the total volume of trade, although in particular classes of goods, e.g. manufactures, there was greater activity, balanced by a smaller movement of timber and food-stuffs.

Sweden is in a very prosperous condition, the surplus of assets in the State register of January 1, 1920, being between £110 millions and £120 millions.

**Position and Climate.**—Sweden forms the eastern or leeward, section of the Scandinavian Peninsula, marching with Norway in the west. It extends some degrees farther south than the latter country, and does not stretch so far north, and these facts, coupled with the generally lower elevation of the country, give to Sweden a far greater extent of cultivable land than the neighbouring kingdom. Being sheltered from the Atlantic winds by the highlands of Norway, Sweden has a moderate rainfall, and a very severe winter. To the south of latitude 60° N., however, the provinces of southern Svealand and Götland form a low-lying sub-peninsula, washed by the Kattegat and Baltic Sea, and here the climate resembles that of the neighbouring peninsula of Denmark, although it is not so mild. It is in this southern position, with its agricultural and pastoral possibilities that the bulk of the population of Sweden is found.

**General Physical Conditions.**—The western boundary of Sweden runs along a high plateau which is a snowy waste in winter, and a bare moorland in summer. From this elevation the land slopes eastward to the Gulf of Bothnia, and the rain and snow of the plateau are carried off by a series of parallel rivers—the Tornea, Lulea, Umea, Dal, etc.—which are important sources of hydro-electric power. Usually they emerge from long, narrow lakes, a series of which fringe the plateau, and hence a steady flow of water is ensured. South of latitude 60° N. occurs the sub-peninsula already mentioned, which is crossed by a great depression in which lie large irregularly shaped lakes. The most important of these are Lakes Wener and Wetter, linked by the river Göta, and draining to the Kattegat. The Göta has been canalized, and a canal cut from Lake Wetter to the Baltic, and hence there is a direct waterway across the peninsula from west to east, the terminal ports being Göteborg and Söderköping. The lower Göta is broken by the Trollhätten Falls, an important power centre. Another large lake is Lake Mälär, extending far inland behind Stockholm. Immediately to the south of Lake Wetter is a somewhat hilly and sandy wood and moorland tract, which falls away in all directions to more fertile agricultural land. Generally speaking, the uncleared lands south of latitude 60° N. are clothed with broad-leaved forest (oak, elm, birch), while to the north of that parallel lie the great coniferous forests (larch, spruce, fir) which form the main natural wealth of Sweden. This forest region also contains great mineral deposits, for it is built of old crystalline rocks (including granite), which are often associated with metalliferous veins. The southern lowlands

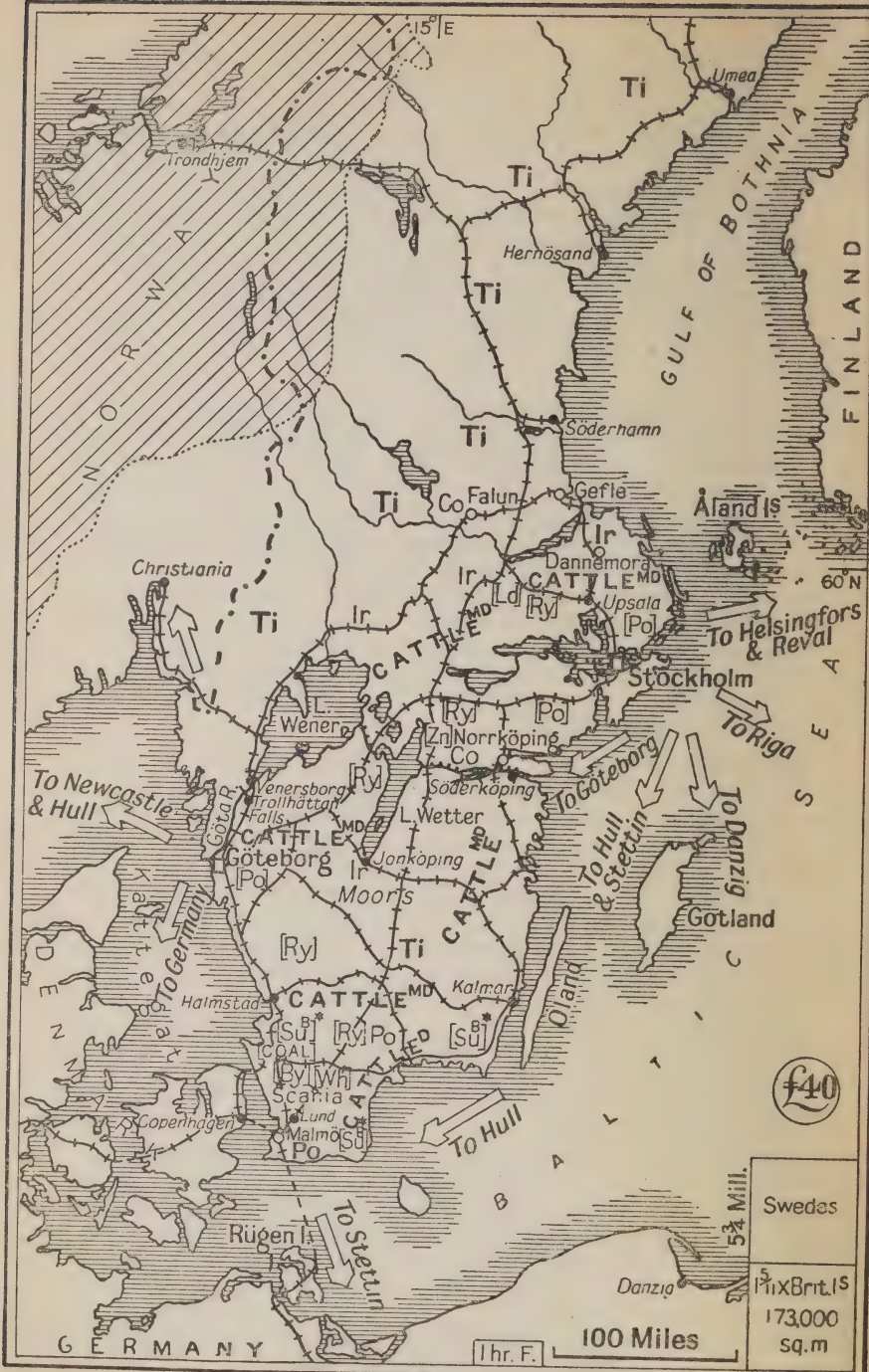


FIG. 123.—SOUTHERN SWEDEN.



## Sweden.

are covered with marine sediments and glacial clays, while in the extreme south a chalk formation appears.

**Human and Economic Conditions.**—Agriculture is important in Sweden, in spite of the relatively small area in which favourable soil and climate conditions are found. The land is for the most part farmed by the owner of the soil, and more than 80% of the holdings are quite small—from 5 to 50 acres. The total number of farms is 360,000, and the cultivated area is less than one-tenth of the total land surface of the country. Cultivated fields cover  $9\frac{1}{2}$  million acres, of which about one-third is under fodder crops or pasture, while there are besides some 3 million acres of natural pasture. *Stock-rearing* is consequently important, the census of animals in 1919 showing nearly  $\frac{3}{4}$  million horses,  $2\frac{1}{2}$  million horned cattle,  $1\frac{1}{2}$  million sheep, 133,000 goats, nearly  $\frac{3}{4}$  million pigs, and  $\frac{1}{4}$  million reindeer. The latter are used as transport and milch animals by the Lapps and others in the north of Sweden. The **horses** are bred for export as well as for home use, and the number sent to Germany greatly increased during the War. The number of **cattle**, however, fell from 3 millions in 1914 to  $2\frac{1}{2}$  millions in 1919, owing to the lack of feeding stuffs and the demand for slaughter animals. The export of these animals became, therefore, very small, while a more serious consequence was the diminution in the manufacture of butter and cheese, the *dairying* industry of Sweden having assumed very considerable importance during the years preceding the War. The output of butter in 1913 was 32,000 tons, and of cheese 14,000 tons, while the 1918 figures showed only one third of these quantities. This was, however, an unusually bad year. The ratio of cattle to population is much higher than in Britain, although rather less than that in Denmark. The sheep of Sweden are of local importance only, supplying raw material for small woollen manufactures. The ratio of pigs to population is less than half that of Denmark, and the bacon industry is mainly for the home market.

As regards corn crops, the high latitude and the consequent severe climate render the wheat and barley harvest uncertain, and the largest acreage is under *oats*, followed by *rye*. Consequently there is a large import of grain for human food purposes. *Potatoes* are a very important crop, and in the extreme south *sugar-beet* is successfully and increasingly grown, although at present there is no exportable surplus of sugar.

Apart from the dairying industry, the agriculture of Sweden is merely of local importance, the principal asset of the country being the woods and *forests* which cover 57 per cent. of the total surface. About 20 million acres—or one-third of the total—belongs to the State, and is an important source of revenue. The **timber** industries employ about 60,000 workpeople, and the products were in 1918 worth £25 millions—or £10 millions more than in 1913. Sawn and planed timber (planks, battens, scantlings, etc.) and partly manufactured timber (window frames, mouldings, etc.) of Swedish origin find a market in every civilized country in the world. The same is true of the products of the **pulp** and **paper** industry which employs over 40,000 workpeople, and had an output in 1918 valued at £28 millions—or £16 millions higher than in 1913. The saw-mills and pulp mills are located on the rivers flowing into the Gulf of Bothnia, which drain the forest area. These offer both a means of floating the logs to the mills and ample water-power to drive the machinery. A series of small timber-ports—Söderhamn, Hernösand, Umea, etc.—lies along the Gulf of Bothnia.



The old rocks which build the greater part of Sweden north of the chain of great lakes are exceedingly rich in *minerals*, with the result that mining and metal working in some form or other occupies over one-third of the total of 400,000 persons employed in industry. Moreover the number of work-people thus employed in 1917 was 32,000 more than the number employed in 1913, and the value of the output increased from £32 millions in the latter year to £91 millions in the former. The principal mineral product is **iron**, the most famous field being the Gellivare district in Lapland, which is connected by rail with the small port of Lulea on the Gulf of Bothnia, and also with Narvik on the Norwegian coast, the latter being ice-free during the months when Lulea is closed. The deposits are mainly magnetite, which as a rule is high in phosphorus, and the reserves are estimated at nearly 100 million tons. Of  $6\frac{1}{2}$  million tons of iron ore raised in Sweden in 1918 nearly  $4\frac{1}{2}$  millions were exported as such, the lack of coal in Lapland rendering this the most economical way of disposing of the product. The low phosphorus iron from the fields of central Sweden (Dannemora, etc.), is, however, smelted locally, partly with imported coal, and partly with charcoal. There are also large hæmatite deposits high in phosphorus in Central Sweden. Some  $\frac{3}{4}$  million tons of *pig iron* and  $\frac{1}{2}$  million tons of *bar iron* are produced annually. A proportion of the pig iron is exported, but the quantity has diminished with the growth of the local steel manufacturing industries. In 1913 the export of raw or partly worked iron and steel was in excess of the import by £2 $\frac{1}{2}$  millions, whereas in 1918 the excess of exports was valued at over £10 millions. Comparing the movement of *iron and steel manufactures* in the same two years, there was in 1913 a very small excess of imports of this class, whereas in 1918 there was an excess of exports of £3 $\frac{1}{2}$  millions, and a total export worth £5 $\frac{1}{2}$  millions. The difficulty of obtaining the special Swedish high-quality iron in Britain during the War led to a rapid development of the electric-iron industry, e.g. in Sheffield, and it is possible that the products of the electric furnace will permanently displace the Swedish charcoal-smelted iron. Broadly speaking, during the war years, Sweden was able to supply more *metal manufactures* to her home market and at the same time increased her sales abroad. This was the case especially with dairying and other machinery, motors, electrical apparatus and fittings, scientific instruments, clocks and other highly specialised products for which the Swedish manufacturers have a high reputation. The glass and porcelain parts used in these manufactures also comes from Swedish factories. *Chemical industries*, including *matches*, produce goods to the value of over £16 millions, the matches being largely exported. *Leather and rubber industries* are equally important, although the products are mainly locally consumed. The same is true of the output from the textile factories, roughly to the value of £6 millions of *cottons* and the same of *woollens*; the export is negligible and the import very considerable.

Besides iron, **copper** is mined at Falun, the output of ore being 21,000 tons, while 48,000 tons of **zinc** ore, 16,000 tons of *manganese* ore, and 3,000 tons of *silver-lead* ore were also raised in 1918. The smelting of these metals, partly from imported ores, increased considerably during the War.

In the absence of coal-fields (except for a small one, producing about  $\frac{1}{2}$  million tons, in Scania) there is no concentration of industries in large towns or in particular areas, save for the cotton mills of Norrköping. The factories

## Sweden.

are scattered all over the country-side in the better-peopled centre and south, the exact location being determined by the presence of a waterfall or by convenience of rail or water transport.

Hydro-electric stations in Sweden already produce 1,150,000 horse-power, and another  $\frac{1}{4}$  million horse-power will shortly be available. The railways are gradually being electrified, and electric lighting even in rural areas is general.

**Trade Relations.**—Broadly speaking, Sweden requires in bulk coal, grain and flour, colonial wares, raw textile material and yarn, and particular classes of textile goods, metal goods and machinery, besides luxury articles. Great Britain takes a leading part in supplying these goods, either directly or through her entrepôts, and in return buys practically every class of Swedish exports. The Board of Trade figures for 1920 show that the volume of trade between the two countries reached the high figure of £95 millions—as compared with about £20 millions before the War. The trade between Germany and Sweden is, however, usually more important than that with Great Britain, since (apart from the movement of coal) it is of the same character as that with the latter country, and the Swedish port of Malmö is connected by train-ferry with Germany, while Göteborg is also nearer to the German ports and entrepôts than to those of Britain. With Norway, Denmark and Finland, lying as they do within easy distance, Sweden does a considerable volume of trade, and there should be a market for the cheaper Swedish manufactures in the new East Baltic Republics and in Russia, which can supply in return grain, flax, hemp, beet-sugar and cattle-cake. As has been mentioned, Swedish timber and paper are marketed directly in a great many parts of the world (e.g. Australia, South Africa, Spain) from which the direct return trade is small. Since, however, Sweden has established her position in these markets, and has a very considerable merchant marine (over 1 million gross tonnage), there is an opportunity for her to build up a valuable entrepôt trade for the import and re-export of foreign goods to the Baltic countries generally, the position of Göteborg being very central. The minor port of Halmstad, on Kattegat, is also well placed for trade with the West, while Kalmar, behind Oland, is similarly situated on the east coast. There are Free Harbours at Göteborg, Stockholm and Malmö.

**General Information.**—The unit of currency in Sweden is the same as in Norway and Denmark, namely the *krona* of 100 *öre* with a par value of 1s. 1½*d.*, or about 18 *kroner* to the pound sterling. The National Bank (belonging entirely to the State) has power to issue notes, and there is now over £40 millions of paper money in circulation. The standard of value is gold. The chief bank with foreign connexions is the Stockholms Handelsbank, for which all the leading London and Continental banks are agents.

The metric system of weights and measures is obligatory. Letters from London reach Stockholm in two days. There is a Consul-General at Göteborg, besides Consular representatives at Stockholm, Malmö, Gäfle, Söderhamn and other commercial centres. There is a British Commercial Secretary at Stockholm.



## SWITZERLAND

**Area and Population.**—The Swiss Confederation of twenty-two Cantons has a Republican constitution, the chief magistrate being an annually elected President. The area of Switzerland is nearly 16,000 square miles (a little larger than Denmark), and the population about  $3\frac{1}{10}$  millions. Of these, 65 per cent. are German speaking, 20 per cent. (chiefly in the south-west cantons of Geneva, Vaud, Valais, Neuchâtel and Fribourg) are French speaking,  $7\frac{1}{2}$  per cent. (in the canton of Ticino, beyond the St. Gothard) are Italian speaking, and about 40,000 in the Upper Rhine basin speak Romansch, a language akin to Latin. The largest town is the industrial and educational centre of Zürich, with 207,000 inhabitants; Geneva, the south-western gateway into the country, has 135,000; Basel, in a corresponding position in the north-west, has 136,000; Bern, the Federal capital, 105,000; Lausanne and St. Gall, important industrial cities, have each about 70,000; Lucerne, the famous tourist centre, has 45,000, and four other towns have over 20,000. The total foreign trade in 1919 and 1920 averaged £286 millions, or £75 *per capita*, as compared to £132 millions, or £33 *per capita* in 1913. The large volume of trade is characteristic of a manufacturing country, since both food and raw material must be imported in bulk, and articles of high value are exported. Switzerland has always a so-called “adverse” balance of trade, the imports exceeding the exports by about £22 millions. Actually, however, the balance is adjusted by “invisible exports” in the shape of the money spent in the country by the summer tourists and the visitors thronging to the winter sports. During the War years, when the hotel industry was almost at a standstill, this “adverse” balance was likewise very small, while in 1919 it again increased to about its former total.

**Position and Climate.**—Switzerland lies in the heart of Europe, marching with France, Germany, Austria and Italy. It extends from latitude  $45^{\circ} 49' N.$  to latitude  $47^{\circ} 49' N.$ , and from longitude  $5^{\circ} 58' E.$  to longitude  $10^{\circ} 30' E.$ ; it is thus in the same latitudes as Burgundy to the west and the Hungarian Plain to the east. The climate is that of Central Europe, i.e. more extreme than that of Britain, modified by the fact that even outside the Alps proper the whole country is elevated, and the greater part has a northern aspect. Thus really hot summers are limited to certain deep valleys, and to a few regions facing south, e.g. Neuchâtel, Ticino, and the northern shores of Lake Geneva. Winter snow is universal, and in the mountains is an economic asset, not only providing for the winter sports, but also giving their peculiar richness to the Alpine meadows, and supplying water-power in the shape of snow-fed torrents.

**General Physical Conditions.**—Switzerland includes the central and loftiest masses of the Alps, which extend also into Austria, France and Italy, together with a part of the plateau which flanks the mountains to the north. This plateau is shut off from France by the Jura Mountains, part of which are Swiss, but on the whole it lies open to Germany, the boundary in this direction being formed by Lake Constance and the Rhine. Both the Rhine and the Rhone take their rise in Switzerland, and each empties itself into a large lake (Constance and Geneva respectively) on leaving the high Alps. The plateau or foreland belt is drained by the Aar, Reuss and Limmat, all of which eventually unite with the Rhine above



## Switzerland.

Basel, and all of which have their flow regulated by lakes (Neuchâtel, Lucerne, Zürich, etc.). Hence they are well suited for the development of water-power. On the southern slopes of the Alps, which are much more abrupt than the northern, the River Ticino, and its tributary the Toce, are of greatest importance, as affording the principal route-ways into Italy. The St. Gothard Pass lies between the Upper Reuss and Ticino valleys, the

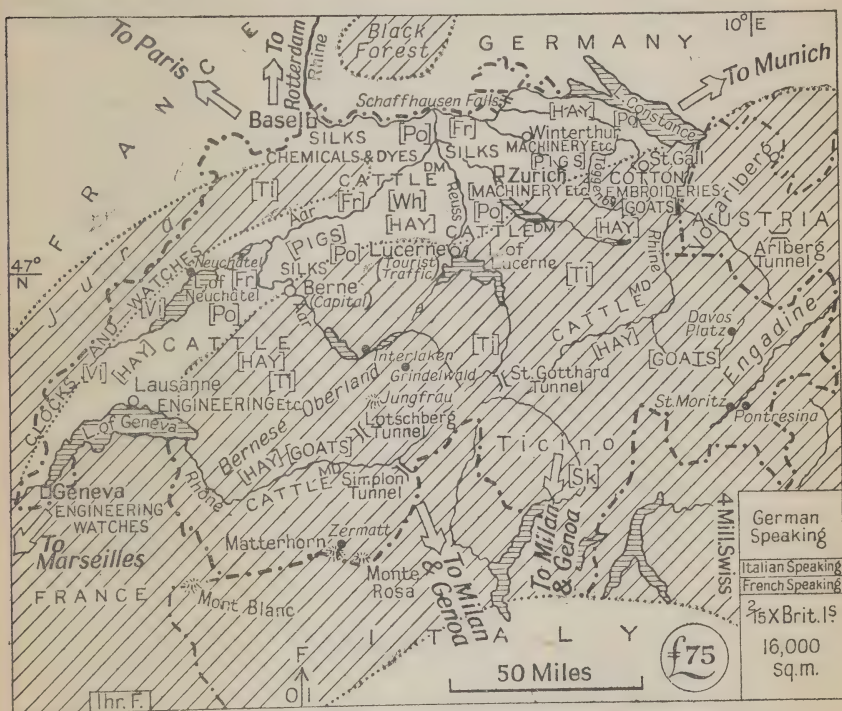


FIG. 124.—SWITZERLAND.

Simplon Pass between the Upper Rhone and Toce valleys, both these being followed by railways. The cutting of the Lotschberg Tunnel through the Bernese Alps gave a more direct approach to the Simplon than was originally the case.

**Human and Economic Conditions.**—In spite of its mountainous character, over three-quarters of Switzerland is reckoned as productive. Nearly one-fourth of the productive area is under forests, chiefly pines, firs, and larches, although there is also oak, beech, maple and walnut at the lower elevations. Agricultural land (in the valley bottoms and on the plateau), together with meadows and Alpine pastures, makes up more than half the total, while in the south-west there are vineyards on the sunny slopes, and considerable space is devoted to orchards. Little more than a quarter of the working population, however, is occupied in agriculture and forestry, the grain, root and fruit crops being of importance only as a home

## Switzerland.

food supply. The animal industries, however, play a part in external trade, particularly the *dairying* industry, for which the rich pastures and abundant hay are well suited. Horned **cattle** number 2 millions, the number of sheep being insignificant, while of goats there are only 333,000 and of pigs  $\frac{1}{2}$  mill. Pedigree Toggenburg goats are a valuable milking strain. **Condensed milk** and **cheese** (including Neuchâtel and Gruyère) are exported in large quantities, while the milk is also used in the important *confectionery* industry (milk chocolate, etc.). *Bee-keeping* is of some importance locally, approximately 30,000 bee-keepers possessing 206,000 hives.

Between 40 and 50 per cent. of employed persons in Switzerland are engaged in industry or handicrafts, and that in spite of the fact that apart from salt and wood, the country is without raw materials, and moreover is without fuel and without direct access to the sea. The widespread development of hydro-electric power partly compensates for the lack of coal, but some 3 million tons are required annually for the railways, for domestic use and for industry. Consequently the manufactures of Switzerland tend to be those requiring a high degree of technical skill, and such that the finished product has a high value relatively to its bulk.

Most characteristic is the **watch** and **clock** industry of the south-west, centring in Geneva and Neuchâtel. Gold, silver, and base metal watches are turned out, besides wooden and other clocks, the export in 1919 being worth £12 millions. Raw metals, including special qualities of steel from Britain, are necessarily imported for this industry.

In the north-east of the country is found the **cotton embroidery** and **machine lace** industry centring at St. Gall, which employs, besides factory hands, large numbers of outworkers in the surrounding districts. Fine cotton yarn for this industry is supplied in part by Britain. The export of cottons was first on the list in 1919, and was valued at over £31 millions.

The **silk**-weaving industry is of practically equal importance, the leading centre being Zürich, and the secondary centre Basel (for ribbons). Raw silk and silk yarn are supplied by both Italy and France. The export in 1919 reached £28 millions.

The **engineering** industry is highly developed in all the chief cities, a famous centre being Winterthur, where electrical and other locomotives are manufactured. *Machinery* takes a high place among Swiss exports, the value in 1919 being £9 millions. Other metal industries, especially *iron* manufactures, *copper* manufactures, and *aluminium* manufactures, are likewise important, and furnish exports to the value of over £10 millions. The electro-chemical products include also calcium-carbide and ferro-silicon. *Motor-cars*, especially lorries, are manufactured on a large scale, this industry, like the metal industries already mentioned, having expanded rapidly during the war years.

The **chemical** and **dye-stuffs** industry is an old-established one, centred at Basel, and supplies about 10 per cent. of the world's demand. Raw chemicals and intermediate substances are imported from Germany and to a less extent from Britain, while latterly they have been drawn also from Spain. Aniline dyes and indigo are the chief articles produced (over £5 millions), besides pharmaceutical products and perfumery.

Among miscellaneous manufactures, that of wooden articles, including *furniture*, is of leading importance, while Swiss confectionery (especially



## Switzerland.

*chocolate*), *boots and shoes*, musical instruments, and scientific *instruments and apparatus* are also widely marketed abroad.

**Trade Relations.**—Swiss trade follows three main routes—by the Rhine valley (through Alsace) to Antwerp or Rotterdam, via Basel: by the Rhone valley to Marseilles or Cette, via Geneva: through the St. Gothard tunnel, or across the Simplon Pass, and thence across the Lombardy Plain to Genoa. The last named, though the most direct, is expensive, so that all the routes compete on fairly equal terms. The improvement of the Rhine water-way so as to render it navigable for steamers to Basel is very desirable from the Swiss standpoint. The fact, however, that the Swiss traffic passes through French territory only to seek a Belgian or Dutch port stands in the way of special facilities being allowed by France over the northern route. Much of the heavy inward traffic—e.g. iron, coal, grain, timber—is, however, necessarily by way of the Rhine valley, since these goods come from Britain, Germany, France, America and Sweden. The list of countries with which Switzerland does a large volume of trade is a long one. France, Germany, Great Britain, the United States and Italy are her customers of the first rank, with in addition the group of States formerly comprising the Austro-Hungarian Empire. Spain, Holland, Bulgaria, Sweden, Japan, Australia and Denmark are customers of the second rank. Imports are drawn from a slightly different grouping of countries, Germany, the United States, France, Great Britain, Italy and Spain coming in the first rank as regards the value of goods supplied, while Japan, Argentina, Sweden, the Dutch Indies (for sugar, cacao, etc.), British India, Brazil, Austria and her neighbours fall into the second rank.

As has been mentioned, Swiss manufactures are mainly of specialised groups of articles, which find a market in every civilised country in the world, including those that are themselves engaged in manufacture. Hence there are necessarily many classes of manufactured goods which Switzerland must import, and manufactures formed in 1918 29 per cent. of the total imports, while food-stuffs formed 26 per cent. and raw materials 45 per cent. On the other hand raw materials formed only 4 per cent. of the exports, food-stuffs 7 per cent., and manufactured goods the remaining 89 per cent.

In 1914 Switzerland was employing only 19 per cent. of the water-power available, some 800 establishments employing an average of  $\frac{1}{2}$  million horse-power, but the present figures must be higher by 50–60 per cent., and plans are in progress for the electrification of further sections of the railways. Moreover, there is an increase in the use of electricity for household purposes—heating, cooking, etc.—so that the demand for foreign coal is diminishing, and the economic position of the country is correspondingly strengthened.

**General Information.**—The unit of currency in Switzerland is the franc, of which  $25\cdot22\frac{1}{2}$  = £1 sterling. The National Bank alone has power to issue notes, those now in circulation totalling nearly three times the value of the coins. The Swiss Bank Corporation has offices in London.

The metric system of weights and measures is legally established. The chief unit of weight is the *pfund*, which is equal to  $\frac{1}{2}$  kilogramme, equivalent to  $1\frac{1}{16}$  lb. avoirdupois. The *quintal* is equal to 100 kilogrammes or 200 pfunden. Over half the Swiss people are Protestants, and about one-third are Roman Catholics, but there is complete religious liberty. Mails reach Switzerland in two days. There is a British Consul-General at Zürich,



**Syria (with Palestine).**

besides Consuls or Vice-Consuls at all the leading towns. A Commercial Secretary is attached to the British Legation.

**SYRIA (WITH PALESTINE)**

**Area and Population.**—Syria and Palestine, formerly under Turkish rule, have an area of about 116,000 square miles (rather larger than Italy), and a population of approximately  $3\frac{1}{2}$  millions. Of this total Palestine, which is administered under a British mandate, covers 9,000 square miles, and has 650,000 people. The territory north of Palestine is under a French mandate, and the western portion has been granted autonomy, under the designation of the Great Lebanon. The exact status of the east of Syria and of the north (which forms part of Cilicia) has not yet been determined. The bulk of the population are Syrian Arabs, and the language spoken is Arabic. The prevailing religion is Mohammedanism, but about 10 per cent. are Christians. In Palestine, besides, there are about 65,000 (10 per cent.) Jews (including recent colonists), and the British Government is establishing that country as a national home of the Jewish people, although the rights of the Arab majority are to be respected.

The two largest cities of Syria are Damascus and Aleppo, the historic traffic centres on the desert margin, each with about 250,000 people. Beirut, the chief city and port of Great Lebanon, has 150,000 inhabitants; Jerusalem, the Holy City alike of Jews, Christians and Mohammedans, has 60,000; Jaffa, the chief seaport of Palestine, has 54,000.

Various missionary bodies carry on educational work in Syria and Palestine; the American College at Beirut is important, and instruction for the Jewish community (carried on in Hebrew) is very thoroughly organised.

Trade statistics for the region as at present organised are not available: £4-5 per head, or a total of about £15 millions, is probably a conservative estimate. Imports are in excess of exports, which is partly explained by the subsidising of teachers, missionaries, clergy and Jews from abroad, and by the fact that money is brought into the country by pilgrims and tourists to the Holy Places.

**General Physical Conditions.**—Except for a narrow coastal plain to the south-west, and the small but exceedingly fertile Plain of Esdraelon in the north of Palestine, the country is hilly and elevated, especially in the north, where the Lebanon Mountains rise over 8,000 feet. A longitudinal valley, forming a deep trough about 10 miles wide, runs from north to south, dividing the Lebanon Mountains into two ranges, with the Orontes flowing between. The northern and higher lying portion of this trough is the fertile region known as the Beka'a; the southern portion holds the waters of the Jordan, and its level gradually sinks lower and lower, so that the Dead Sea, which lies within it, has a surface 1,000 feet below that of the Mediterranean Sea. Hence the valley is sultry and unhealthy.

The hilly country is covered with natural pasture, or with scrub oak and wild figs and mulberries. The once famous cedar forests of Lebanon have been destroyed. Beyond the longitudinal trough, the scanty rainfall gives the country a bare aspect, except where the streams from Anti-Lebanon water the gardens of Damascus.





**Syria (with Palestine).**

for winding the silk from the cocoons. A proportion is retained for the hand-loom of Damascus, Aleppo and Beirut.

Crops requiring more careful cultivation and irrigation are the **oranges** of Jaffa and Beirut, which need water in the summer, the high-grade "Turkish" **tobacco**, grown round Latakia and Tripoli, and the **cotton** of Alexandretta. *Licorice* is grown without irrigation, and is in demand in the United States for sweetening tobacco. Lately considerable attention has been given to *cotton* round Haifa, Aleppo, and in the hot Jordan valley. *Oil-seeds* are also grown.

The live-stock consists of *camels* and *donkeys* (largely used for transport), *sheep* and *goats*, all of which thrive on the somewhat dry thin pastures of the hills, and of the desert margins.

There is *petroleum* in the Jordan and Dead Sea valleys, but no development has taken place.

**Trade Relations.**—Syria and Palestine have already a good railway system, developed mainly by French and British companies. Alexandretta and Aleppo are linked with the Baghdad Railway from Smyrna to Basra, which crosses the Euphrates at Jerablus. Lines run inland from Tripoli to Homs, from Beirut to Damascus, from Akka and Haifa to the Hauran, and from Jaffa to Jerusalem. All of these are now linked up by the north-south railroad, which runs from Aleppo via Homs and Damascus, along the desert margin through Arabia to Medina, carrying the vast Moslem pilgrim traffic *en route* for Mekka. The historic route from Palestine into Egypt is now followed by a railway, which crosses the Suez Canal, so that Jerusalem is linked up with Cairo.

Beirut has a harbour with wharf accommodation, but it accommodates small vessels only. Jaffa, Haifa, Akka, Tripoli and Alexandretta are merely roadsteads, but the last named has a deep and safe anchorage, and in view of its good railway connections, and productive hinterland should become the leading port of the region. At present Syrian traffic is usually transhipped at Alexandria, in Egypt.

Before the War, France, Turkey and Egypt took the bulk of the exports—raw silk, agricultural and animal produce—Britain taking under 10 per cent.; on the other hand the largest import trade—chiefly in cotton textiles—was British, and this should be maintained and increased.

There should be a wide demand for agricultural implements and machinery in view of the progress that will be made both in Syria and Palestine under the new régime. Light motor cars and trucks, adapted to hilly country, are also in demand, as the French have improved the Syrian roads.

**General Information.**—The unit of currency in Syria is the Syrian pound of 100 piastres, each worth 20 centimes. The Syrian Bank issues notes under French Treasury control. The unit of currency in Palestine is the Egyptian pound, £E1 = £1 0s. 6d.; Turkish currency is accepted, but not Turkish Treasury notes. The most important banking establishment is that of the Anglo-Palestine Company. Business is also done by the Anglo-Egyptian Bank and the Banque Commerciale de Palestine. Turkish weights and measures, with local variants, are in use, but the metric system will probably be introduced.



## Taiwan (Formosa).

### TAIWAN (FORMOSA)

**Area and Population.**—Taiwan was ceded to Japan by China in 1895. The area is 14,000 square miles, and the population 3·6 millions. The total foreign trade is £23 millions, i.e. £6·5 per head, the exports being greatly in excess of the imports. The population consists largely of Chinese colonists ( $2\frac{1}{4}$  millions), and is mainly concentrated along the west coast opposite China. Since the annexation many thousands of Japanese colonists have entered Taiwan. The aboriginal Formosans are not Mongols, and only where they have come into contact with the Chinese have they adopted a semi-civilised life. In some regions they are still unsubdued.

The largest town is Taihoku, in the north-west, with a population of over 100,000.

#### Position, Climate and General Physical Conditions.

—Taiwan lies across the Tropic of Cancer; about 120 miles from the Chinese coast, its position being similar to that of Cuba. During the long summer the south-east monsoon brings abundant rains, heaviest on the east coast, while during the warm winter the north-west monsoon brings rainfall to the north-western districts. Hence the land is highly productive, and double cropping is possible. The country is mountainous, and clothed with evergreen forests, yielding bamboo and camphor, besides timber. These forests have been largely cleared in the settled districts, where the hillsides are terraced and irrigated as in China.

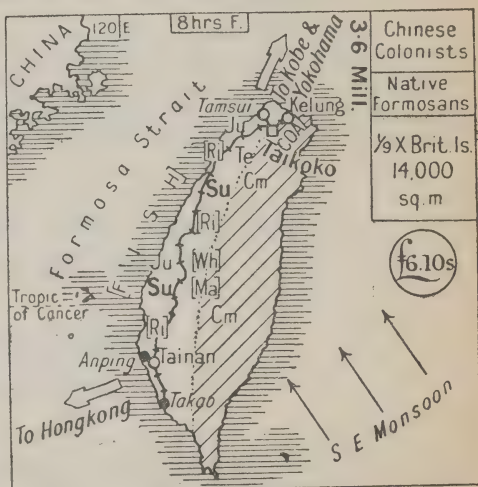


FIG. 126.—TAIWAN.

**Human and Economic Conditions.**—The Japanese have effected great improvements in Taiwan. Roads have been constructed, and a railway runs through the chief agricultural districts, connecting the principal seaports, Tamsui in the north-west, and Anping (for Tainan) in the south-west. **Rice** is grown on the irrigated lands to supply the large local demand, while **sugar** forms a very valuable export. **Tea** is grown on the north-west hill slopes, as the shrub requires winter rain, and a crop of recent introduction is **jute**, which is now grown on an important scale. **Ramie** for grass-cloth is also widely grown. **Camphor** is collected from the forests under Government monopoly, and is manufactured at Taihoku. Minor cereals are wheat and maize, grown on lands unsuitable for rice.

The principal mineral is **coal**, of which there is a large field in the north-east of the island. The output has reached 800,000 tons and is exported from Ke-lung, the best natural harbour on the island, and one suitable for large steamers. There is also a small **oil**-field near the west coast yielding 15-20,000 barrels.

**Taurida Republic.**

The Chinese living on the coast engage largely in *fishing*, since they have little animal food. Buffaloes are the chief draught animals.

The *industries* include flour- and rice-milling, sugar-refining, and the manufacture of bags and hessians from the local jute. From 6-8 million lb. of raw material are consumed, a certain proportion being imported for admixture with the home-grown fibre, since the latter is very coarse.

**Trade Relations.**—The bulk of the produce of Taiwan is sent to Japan, in exchange for manufactured goods. There is also some import of Chinese produce from Foochow and Hong-Kong for the Chinese population, and manufactures and petroleum come also from the United States. Some Formosan tea is marketed in the States and in London.

**General Information.**—The Incorporated Bank of Taiwan, with headquarters at Taihoku (Taipeh), and an office in London, is authorised to issue notes. The coinage, weights and measures, are those of Japan. Mails reach the country via Hong-Kong or Kobe (Japan) in about 5 weeks. There are British Consuls at Tainan and Tamsui.

**TANGANYIKA TERRITORY**

See **British East Africa**, p. 77.

**TASMANIA**

See **Australia**, p. 34.

**TAURIDA REPUBLIC**

**Area and Population.**—The Taurida Republic has an area of 23,300 square miles and a population of about 2 millions, of whom the majority are Little Russians (Ukrainians), but the number includes about  $\frac{1}{4}$  million Tatars in the Crimea, who are Mohammedans, some tens of thousands of Jews, principally in the towns, a small proportion of German colonists, and strong Greek, Italian and Armenian elements on the Black Sea coast. The capital is Simferopol with 85,000 people, and not far away is Bachtschi-Sarai, the Tatar capital, with oriental palaces and mosques. Sevastopol, the Black Sea port, has 62,000 people, while Kertch, on the narrow entry to the Sea of Azov, has 60,000. No estimate can be given of the trade of this new Republic, but its importance lies in the fact that it is part of the great Russian cereal-producing region, and is both highly productive and favourably placed for overseas trade.<sup>1</sup>

**Position, Climate and General Physical Conditions.**—Taurida includes a portion of the South Russian mainland, and the whole of the Crimean Peninsula. It marches with the Ukraine Republic, the boundary being formed for a considerable distance by the River Dnieper. It lies between latitudes 44° N. and 47 $\frac{1}{2}$ ° N., Simferopol being roughly in

<sup>1</sup> For Map see Ukraine.

## Taurida Republic.

the latitude of Bordeaux. The northern section has the characteristic climate of South Russia—severe winter, with snowstorms; mild wet spring; hot, dry summer and autumn. In the Crimean peninsula about two-thirds is a level plain, with a climate of the mainland type, somewhat tempered by the water on either hand, while farther south a mountain range runs parallel to the coast, and shelters a sunny strip which may be called the Russian Riviera. On this strip, facing south, and cut off from the piercing north-east winds, the climate is that of the Mediterranean, and the characteristic Mediterranean cypresses, walnuts and evergreens clothe the hillsides. On the northern slopes of the mountains there are beech-woods, while on the plains there is a steppe vegetation of grasses (with wild tulips and lilies growing in spring), varied by woodlands in the river valleys.

**Human and Economic Conditions.**—Agriculture is the characteristic industry of Taurida, and the methods, being primitive, are proportionately wasteful, i.e. the soil, rich as it is, produces below capacity. On the steppe lands,  $1\frac{1}{2}$  million acres, or half the cultivated area, is normally under **wheat**, which is grown for export, while **barley**, also exported, ranks next in importance. Some flax is grown for **linseed**, besides sunflowers for their **oil-seeds**, and attention is paid to **tobacco** culture. The southern region produces *fruits*, such as pears, peaches, apricots, figs, oranges and so on, besides *vines*, yielding both wine and table-grapes. Early or delicate *vegetables* are also cultivated, since there is normally an active market for such produce in the towns of south Russia where the climate is more severe. Health and pleasure resorts are also to be found in the southern Crimea.

The only animal industry of importance is **sheep**-breeding, large flocks being reared on the steppes, where much grass and hay is grown. Crimean lamb-skins are a valuable article of commerce.

As regards mineral wealth, there are inexhaustible deposits of **salt**, derived from the shallow lagoons which fringe the coast of the Crimea facing the Sea of Azov. The 1919 production was over  $\frac{1}{2}$  million tons. There are also enormous deposits of easily accessible **iron** ore in the Kertch district, which is sent to the Mariupol ironworks in Ukraine, and **oil** has been located in the same district. A new **coal**-field near Bachtschi-Sarai has already been exploited on a small scale.

The manufactures of the country are unimportant; they include the activities normal to an agricultural district, such as flour-milling, brewing, distilling, oil-pressing and leather-tanning. Sevastopol has shipbuilding and repairing yards.

**Trade Relations.**—The main railway of Taurida runs through the country from north to south, terminating at Sevastopol (always ice-free), whence grain is dispatched to Western European ports. The minor ports of Berdyansk on the Sea of Azov, Kertch and Theodosia, the last named on the south-east coast, have also rail connection with the interior, and a line runs to the Donetz coal-field. The exports include, besides grain, some oil-seeds, oil-cake, wool and leather, and the leading imports are coal, cotton goods, woollens, iron and steel, agricultural machinery and tools, sugar and tea. Poland is favourably placed for supplying cottons, while the Ukraine has a surplus of coal, a manufacture of iron and steel, and a sugar export. Hence the chief opportunity offered to Great Britain and to Western and Central Europe is to supply acceptable types of machin-



**Togoland.**

ery and woollens, and small consignments of such goods as motor-cars, bicycles, electrical goods, chemicals, manures, earthen and glass ware, enamel-ware, haberdashery, stationery, fancy goods, zinc and brass ware and so forth. The peasantry make, of course, but a very small demand for such goods, as they live and dress in primitive style.

**General Information.**—The unit of currency is the *rouble*, and Russian weights and measures are employed. The Russian and Tatar languages are spoken.

**TEREK REPUBLIC**

See **Caucasia**, p. 135.

**THRACE**

See **Greece**, p. 256.

**TIBET**

See **China**, p. 148.

**TIMOR**

**General Information.**—Timor is the eastern portion of the island of that name, and is a Portuguese possession, the western part of the island being part of the Dutch East Indies. It is administered by a Governor. It has an area of rather over 7,000 square miles, and a population of 378,000, largely of the Malay race. Timor is situated 10° S. of the Equator, and the climate is tropical, with heavy summer rains followed by a dry season. The island is fertile and productive, but cultivation is mainly carried on in primitive fashion for local needs, and the foreign trade is very small. There is a small **oil**-field in the eastern extremity of the country. Copra and coffee are exported through the port of Dili, on the north coast, and cotton piece goods are imported. There is a branch of the Overseas Bank of Portugal at Dili. The official unit of currency is the Portuguese gold *escudo*, nominally worth 4s. 5½d.

**TOBAGO**

See **British West Indies**, p. 118.

**TOGOLAND**

See **French West Africa**, p. 231.

**Tunis.**

## **TONGA (FRIENDLY ISLANDS)**

**Area and Population.**—Tonga consists of three groups of islands and is a native kingdom under British Protection. The High Commissioner for the Western Pacific has jurisdiction over British subjects. Its area is nearly 400 square miles, and the population nearly 24,000, including about 400 Europeans who are traders, missionaries and teachers. The Tongans are Christians, and a large proportion have received elementary education.

**General Conditions.**—The Tonga group lies just within the southern tropic, to the north-east of New Zealand, from which it is distant rather more than a thousand miles. The islands include both the volcanic and coral types, and the chief commercial product is **copra**, of which the export is normally worth about £200,000. The *fruit* industry is capable of development. The greater part of the copra went formerly to Germany, and now goes to the United States. A proportion goes also to the soap works of New Zealand and Australia. The latter countries supply the bulk of the imports, mainly drapery and miscellaneous provisions. There are regular sailings to Tonga via Fiji from Sydney (N.S.W.) and from Auckland (N.Z.). British coin is the only legal tender, and British weights and measures are used. There is a British Consul in the islands.

## **TRANS-CAUCASIA**

See **Caucasia**, p. 135.

## **TRANSVAAL**

See **British South Africa**, p. 105.

## **TRANSYLVANIA**

See **Rumania**, p. 403.

## **TRINIDAD**

See **British West Indies**, p. 118.

## **TRIPOLI**

See **Italian Libya**, p. 294.

## **TUNIS**

**Area and Population.**—Tunis is a French Protectorate since 1881, the Bey of Tunis being the nominal ruler. The government is carried

**Tunis.**

on by the French Foreign Office, Tunisian affairs being under the control of a Resident-General. The area of the country is about 50,000 square miles, and the population 2 millions, of whom over 90 per cent. are Arabs and Kabyles. Among Europeans, Italians are in the majority, especially in the large towns, but there are 48,000 French people, of whom the greater number are agricultural colonists. The capital city Tunis has a population of over 160,000. The total foreign trade for 1917-19 averaged rather over £14

millions, i.e. about £7 per head of population. Imports are usually in excess of exports, since large sums of money are being spent on public works, including roads and railways, and new mines are being opened up.

### Position, Climate and General Physical Conditions.

— Tunis is bounded on the north and east by the Mediterranean Sea, to the west by Algeria, and to the south by the Sahara Desert. Lying between latitudes 30° N. and 37° N., the country has a climate typical of the South Mediterranean—very hot and dry in summer, warm in winter, and with winter rains which are abundant in the north, but diminish rapidly towards the desert in the south. The mountain ranges and plateaus prolong those of Algeria and trend towards the north-east, and the Merjerda valley and neighbouring coast plains repeat the characters of the agricultural Algerian Tell. The east coast plain is somewhat arid, and the south extremely so; to the south of the

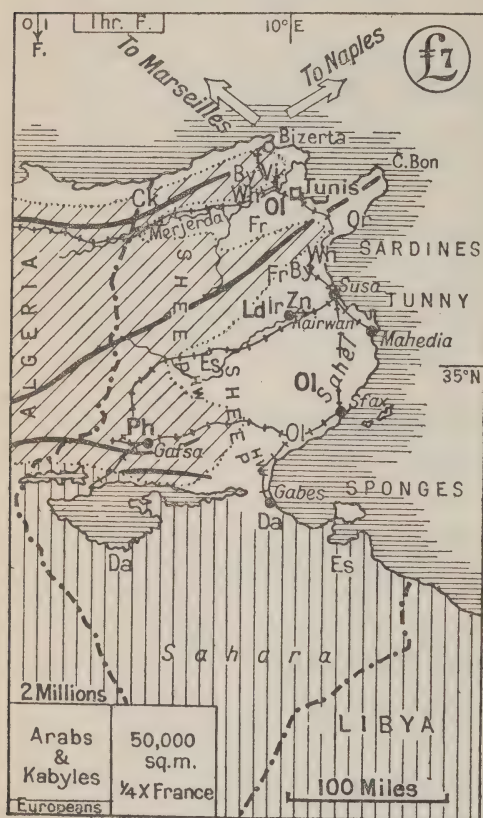


FIG. 127.—TUNIS.

Saharan Atlas a deep depression runs inland, covered with a series of shallow saline lakes—the Shotts. As in Algeria, cork and holm oaks, cypress, cedars, myrtle and laurel characterise the northern zone, esparto grass and wormwood clothe the plateaus, while there are oases in the southern desert region.

**Human and Economic Conditions.**—Wheat, barley, vines, and orange groves cover the agricultural lands of the north and north-east, and wheat forms an important article of export. In value, however, it is far surpassed by **olive-oil**, the eastern coast plain being noted for



## Tunis.

its olive orchards, even towards the south, where the rainfall barely exceeds 10 in. a year. In 1917 the export of olive-oil accounted for a quarter of the total value of outgoing goods. The **dates** from the southern oases (where there are over a million date-palms) and the **esparto** grass from the plateaus are also articles of commerce, while from the  $2\frac{1}{2}$  million sheep and  $1\frac{1}{2}$  million goats that graze on the dry pastures there is a yield of *wool*, *hides*, and *skins*.

It is, however, for its *mineral* wealth, rather than for its agricultural products, that Tunis is so important, for the Atlas mountains, as in Algeria and Morocco, are rich in various ores, and in the arid belt to the south there are immense reserves of rock **phosphates**, e.g. at Gafsa. These alone were exported in 1912 to the value of close upon £2 millions, and the decrease to little over £ $\frac{1}{2}$  million in 1917 was due merely to temporary difficulties as regards labour, transport and machinery consequent upon war conditions. The ore of greatest value is **lead**, of which France has but a small home supply, in addition about  $\frac{1}{2}$  million tons of **iron** ore are raised, and over 10,000 tons of **zinc** ore, which is not mined at all in France.

The *fisheries* are of some importance, the catch of sardines, anchovies, tunny and sponges being worth about £2 million annually and employing 10,000 men.

**Trade Relations.**—Two-thirds of the exports of Tunis go to France, which country also supplies nearly one-half of the imported goods. Great Britain has, however, the second place, supplying coal and a considerable proportion of the cotton goods, hardware and machinery which are the commodities in greatest demand. The value of these reached £2 $\frac{1}{2}$  millions in 1919, but the return trade—including grain and ores—was only £600,000. Italy also sends manufactured goods into Tunis, while from the United States comes petroleum, and from Brazil large quantities of coffee. The road and railway system is well developed, a line running down the Merjerda valley from Algeria to Bizerta and Tunis, the ports of the agricultural region. From Tunis a line runs south along the east coast, with branches inland from the port of Susa to the mines and olive groves, and from the port of Sfax (population 84,000) to the phosphate quarries. The railway mileage was over 1,000 in 1920. Port facilities are good.

**General Information.**—The Bank of Algeria operates in Tunis and issues notes. An Arab bank has recently been opened with a small capital. The coins are similar to those of France, and French weights and measures have almost superseded those of Tunis. The corn measure is in *whibas*, equivalent to a bushel, and 16 *whibas* = 1 *kaffis*. The Comptoir Nationale d'Escompte de Paris, The Crédit Lyonnais and other leading French banks do business in Tunis. The various native peoples are Mohammedans, and there are large numbers of French and native schools, besides a few Italian, both elementary and higher. The languages of commerce are French and Arabic.

There is a British Consul-General at Tunis, a Consul at Bizerta, and Vice-Consuls at Sfax and Susa.

## TURKESTAN

**Area and Population.**—Under the head of Turkestan it is convenient to group certain parts of the late Russian Empire inhabited by Turki peoples, of which the political destiny is at present uncertain. They are Trans-Caspia, Syr Daria, Ferghana, Samarcand, and Semiryecheusk, former Russian provinces, together with the Khanate of Khiva, and the Amirate of Bokhara, two native States under Russian suzerainty. The total area of the region is three-quarters of a million square miles (six times the area of the United Kingdom), and it has a population of about 9 millions. Of these probably between two and three millions are pastoral nomads, while the remainder are densely settled in towns and villages along the rivers and in the valleys where irrigation is possible. The largest towns are Tashkent (272,000 inhabitants), Khokand (119,000), Andijhan (80,000), Namangan (80,000), all in the rich Ferghana Valley, Samarkand (98,000), Bokhara (75,000), and Ashkhabad (54,000). The people are Mohammedans and speak Turkish.



FIG. 128.—TURKESTAN.

**General Information.**—Turkestan lies between the Caspian Sea and the Pamirs and neighbouring mountains, stretching roughly from 50° to 75° E. To the south it is bounded by the plateau of Iran (35° N.), and northward it merges into the Siberian steppe-land, where European colonisation is in progress (48° N.). The whole region is deficient in rainfall (under 10 in. average) and derives its water from the melting snows of the lofty mountains on its eastern border. The Amu Daria and Syr Daria flow down from the mountains through fertile valleys, and thence across the semi-desert plain into the Aral Sea. Farther north the Ili flows into Lake Balkash. The summers are intensely hot, and in the winter piercingly cold winds blow from the north, and snow-storms are frequent. In the mountain

## Ukraine Republic.

valleys the conditions are less extreme. The region is practically treeless, save on certain of the mountain slopes, the vegetation being of saxaul and tamarisk shrubs, with coarse pasture on the lowlands, and mountain pasture at higher levels. Willows and poplars mark the river courses, and there are great swamps with beds of reeds, besides many thousands of square miles of sandy or saline desert.

Owing to the climate large numbers of the people depend for subsistence on their flocks and herds, and there are millions of **sheep** and horned **cattle**, besides horses and camels, in the country. Hence wool, hides and skins are among the staples, and, as in Persia, there is local *carpet* and *rug* manufacture (at Bokhara), and leather work. The *karakul* sheep, whose lambs yield the so-called "Astrakan fur," are native to Bokhara.

The culture of the irrigated areas resembles that of Persia—**cotton**, **rice**, **fruits** (grapes, apricots, almonds), mulberry (for *silk*)—all being articles of commerce, the fruit in a dried state. Wheat, barley, melons, tobacco, and many varieties of crops are grown for local use. Ferghana produces about 200,000 barrels of **oil** annually. The cotton crop (of the Indian variety) is very considerable, amounting to over a million bales, and was the main source of supply for the Russian textile industry. Large quantities of dried apricots go also to Russia. The raw silk goes mainly to India, in return for green tea, Indian textiles, drugs and bazaar goods. In order to market the cotton supply, and for military purposes, two railways connect Turkestan with Russia. The one starts from Krasnovodsk, opposite Baku, on the Caspian Sea, and skirting the Persian frontier, passes through Askabad and Merv, and thence through Bokhara to Samarkand, and into the Upper Syr (Ferghana) valley. A branch runs up the valley through Khokand and other large towns, and a second branch crosses the valley to Tashkent. This city is also reached directly from Moscow by a railway which starts from Samara on the Volga, passes across the Kirghiz Steppes and ascends the lower Syr Daria Valley. A caravan route leads over the mountains to Kashgar in Chinese Turkestan and thence to China and India; a second route runs from Bokhara through Balkh (Afghanistan), and thence through Kabul and the Khyber Pass into India.

## TURKEY

See **Asia Minor**, p. 30.

## TYROL

See **Austria**, p. 47.

## UGANDA

See **British East Africa**, p. 77.

## UKRAINE REPUBLIC

**Area and Population.**—The boundaries of the Republic of the Ukraine, established in 1918, are still indeterminate towards the west and south, but the country is roughly  $1\frac{1}{2}$  times the size of the British Isles



**Ukraine Republic.**

and has between 20 millions and 30 millions of inhabitants. A majority of the people (about three-quarters) are Little Russians, a Slavonic group, akin to the Great Russians, but having their own distinct language, history and culture, which led them to claim independence. There are several million Great Russians settled in the Ukraine, and over a million Jews, who are



FIG. 129.—UKRAINE AND TAURIDA.

found chiefly in the towns, since they engage rather in commercial than in agricultural pursuits. On the western borders there are some hundreds of thousands of Poles, who form an important element, since their standard of living and of education is higher than that of the peasantry in general: the German colonists scattered through the country districts are similarly important. Probably not more than 20 per cent. of the Ukrainian population can read or write, and about 84 per cent. are engaged upon the land, hence the community is generally speaking a backward one. Many districts are over-populated, and there is normally a large emigration to the United States. There is a tendency for even the rural workers to live in towns, hence the market and trading centres are large, including the historic capital, Kiev, with 600,000 inhabitants, Kharkov with 260,000, and Ekaterinoslav with 220,000. The chief seaport, Odessa, with its great grain trade, has 650,000 inhabitants. No estimate can be made as to the value of the future trade of the Ukraine, but before the War it worked out at about £4 per head of population. At present, owing to uncertain political and social conditions, production has fallen far below its previous level, and it is apparent that the displacement of the great landowners by an illiterate peasantry leads to the substitution of traditional for scientific methods of farming. This, however, may be but a temporary phase, if an enlightened

## Ukraine Republic.

government policy, providing technical instruction, and fostering co-operative movements, is pursued.

### Position, Climate and General Physical Conditions.

—The Ukraine lies in south-west Russia, bordering Poland and Rumania, with the Dniester as boundary, and stretching between 46° N. and 53° N. latitude, i.e. the northern part is in the latitude of central England. To the east lies the Republic of the Don Cossacks, and to the north Soviet Russia. The climate is a continental one, marked by a cold winter, with rivers frozen and fields under snow; a hot summer (as in the South of France), and a rapid transition between the two. The rainfall is low—barely 20 in.—but as it falls in early summer it is available for the crops and usually suffices. Bitter north and east winds sweep over the country in winter and spring, since it forms part of the great Russian plain which lies open to the north and east. The chief river of the Ukraine is the Dnieper, which flows from the Pripet Marshes (in Soviet Russia) to the Black Sea: on its banks stand Kiev, Ekaterinoslav, and the secondary port of Kherson, for the river is navigable, although rapids, shifting sandbanks, and periods of low water are serious drawbacks, in addition to the winter freezing. The Bug is a smaller river, farther west, and having at its mouth the port of Nikolayev, formerly a naval arsenal, and a strong competitor of Odessa. The latter stands on an open bay, and not on a river mouth, being consequently ice-free, but it has an exposed situation, and improvements are planned. Thus the seaboard of the Ukraine, although short, is important, and provides a natural and convenient outlet for the produce of the country. The soil of the Ukraine is the famous “black earth,” unsurpassed for fertility. The loose nature of this soil, the strong winds, and the low rainfall, combine to make an environment more suited for grasses than for tree-growth, so that the greater part of the country is steppe, and forests are limited in extent. There are, however, woods in the river valleys, and also many “outliers” of the great central Russian forests which lie to the north.

**Human and Economic Conditions.**—As has been suggested, cultivation is on primitive lines, and although the Ukraine normally produced an enormous crop of cereals, this could be increased by an extended use of modern implements, and by a judicious combination of crop-growing and stock-raising. The yield of wheat per acre, for example, is barely  $\frac{1}{3}$  that of the British Isles. The physical conditions are not unlike those of Manitoba and Saskatchewan in Canada, and a similar range of crops is possible. The staple breadstuff of the peasantry is **rye**, which covers the largest acreage, and is followed by **wheat**, the principal money crop. Since, owing to the practical cessation of trade, money is useless to the peasantry, they are at present raising but little wheat, and the world supply is consequently reduced by tens of millions of bushels. **Barley** held a somewhat similar position to wheat, although a large proportion was sold, not abroad, but to the brewers in the towns. **Oats** are also grown on a very considerable scale for feeding to stock. Minor crops are *flax* for linseed, and *sunflowers* for seed, besides *tobacco*. Some **maize** is grown towards the east, where the summers are hottest. In districts where the soil is not quite so favourable for cereals, two root crops, **potatoes** and **beet**, are of very high importance. The former are used, not only for food, but for the preparation of starch and alcohol, while from the latter nearly 3 million tons of beet-sugar



## **Ukraine Republic.**

are normally obtained. The dense population, and the fact that women and children are available as cheap workers on the land, are factors favouring the cultivation of these roots. The cultivation of orchard *fruits* and of *vegetables* for the colder regions of Russia lying to the north has been a profitable occupation, especially in the river valleys.

The animal industries are not so well developed as might be expected. The flocks and herds no longer roam at large over the steppe, and sheep are probably not suited to the region as at present cultivated, but *cattle*, *pigs* and *poultry* should be reared in large numbers, owing to the abundance of grain and roots, and meat and eggs should be important. The climate is perhaps too hot and dry for dairy cattle.

The Ukraine includes within its boundaries the leading **coal**-field, and the leading **iron**-field of Russia, the former in the Donetz basin, towards the eastern frontier, and the latter at Krivoi Rog in the lower Dnieper basin. The normal output of coal is 20 million tons, and of iron ore 6 million tons, but the present output is a mere fraction of these figures. Near the iron-ore beds are large deposits of *manganese* ore, running from Nikopol to Mariupol, which normally yield 1,000 tons of manganese a year. **Salt** is valuable, and is obtained from a mine near Bakmut (on the coal-field) and from the lagoons which fringe the coast: salt fish and salt meat play a large part in Russian diet, as fresh provisions are scarce during the long, hard winters.

The manufacturing enterprises of the Ukraine are mainly those normal to an agricultural region—sugar-refining, brewing, distilling, flour-milling, fruit-preserving, tanning—these are found in all the large towns. Apart from these there is but one large industry—the manufacture of iron and steel, favoured by the occurrence within one region of coal, iron and manganese. The output of pig-iron in 1912 was 2·7 million tons, and there was a large output of cast-iron and steel, and of rails, beams, sheet-iron, wire, axles, etc. The industry had been steadily increasing previous to the War, and was among the most important in Russia. Leading centres are Mariupol and Ekaterinoslav. In 1913 the output of pig-iron from seventy-three blast furnaces was 6 million tons, but only six furnaces were in blast in 1920, and only five out of sixty-six Marten furnaces for steel.

**Trade Relations.**—The grain of the Ukraine goes normally through Odessa or Nikolayev to London, Antwerp and Rotterdam, but though there is a market for manufactures, there is no great opening for British staples. The peasants wear homespuns, sheepskins, and the coarse cottons of central Russian or Polish manufacture, while German tools, machinery, hardware, and cheap metal wares are largely used, and coal is not, of course, in demand. As usual in a country of peasant farmers who have no reserves of capital, long credit must be given, and purchases depend greatly upon the success or failure of the harvest. British manufacturers must, therefore, study local conditions, and create a demand for miscellaneous British manufactures competing with those offered from Central Europe. Under normal conditions there should be considerable trade with Soviet Russia, which can offer timber, resin, linseed, textiles, furs, in exchange for grain, sugar and alcohol.

Railway communications are fairly good (apart from the havoc wrought by the War, which can be repaired) and the Dnieper is connected by canal with two of the Baltic Rivers—the Memel (or Niemen) and the Düna.



## United States of America.

**General Information.**—The Ukrainian and Russian languages are spoken, and the units of currency, weights and measures are as in Russia. There is a British Vice-Consul at Kherson.

## UNION OF SOUTH AFRICA

See **British South Africa**, p. 105.

## UNITED KINGDOM

See **British Isles**, p. 84.

## UNITED PROVINCES

See **India**, p. 280.

## UNITED STATES OF AMERICA

**Area and Population.**—The United States is a Union of forty-eight States, each of which has its own Constitution, which must be Republican in form, and its own Legislature and laws. The National Government has authority, among others, in matters of general taxation, inter-State and foreign commerce, postal service, coinage, weights and measures. The area of the United States is very nearly 3 million square miles (a few hundred

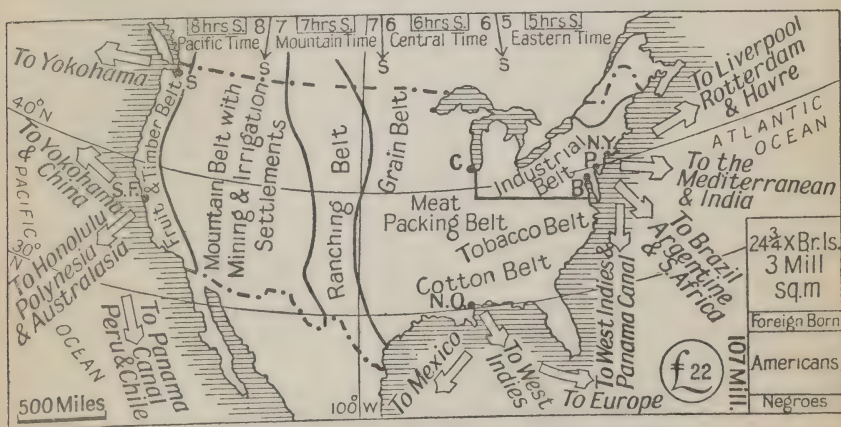


FIG. 130.—UNITED STATES: REGIONS OF PRODUCTION.

square miles smaller than the Australian Commonwealth, or one hundred times the area of Scotland), and the population is 107½ millions (1920 census), the natural increase during the past five years (in spite of a minimum immigration) being 1½ millions annually. In each of the two years immediately preceding the War the number of immigrants was 1·2 millions,

*United States of America.*

including about a quarter of a million from each of the three countries, Austria-Hungary, Russia and Italy.

Up to 1910, however (the last returns), the largest *total* number of foreign-born Americans was from the United Kingdom and Germany,  $2\frac{1}{2}$  millions in each case, more than half the immigrants from the British Isles being Irish. Russia and Austria-Hungary stood next on the list, followed by Italy and Canada, the total of Canadians being 1·2 millions. In 1910 the numbers of Chinese and Japanese were about 70,000 in each case, while 1,500 of the former and 10,000 of the latter entered the States in each of the years 1918, 1919.

Since the liberation of the negro slaves in 1865 the coloured population has increased from under four millions to about 12 millions, or 11 per cent. of the total. Both for historical and climatic reasons this coloured population is greatest in the south-eastern and Gulf States (Virginia, the Carolinas, Georgia, Alabama, Mississippi, Louisiana), where negroes form from one-third to one-half the total. The foreign-born population on the other hand is naturally concentrated in the north-east at the main points of entry into the country, and forms 30 per cent. of the total in New York State, 29 per cent. in the neighbouring States of New Jersey and Connecticut, 30 per cent. in Massachusetts (entering through Boston), as against 16 per cent. in the country as a whole. The foreign immigrants form an important element in the labour supply of the industrial centres, as the negroes do on the cotton and other plantations of the south. The figures showing the percentage of illiterates among the different sections of the population are a rough indication of their relative efficiency as members of the community. At the last census (1910) these figures were as follows : Native whites 3·0 per cent., foreign whites 12·8 per cent, coloured persons 30·5 per cent. unable to read and write. A further analysis would show that the illiterates among the foreign-born came from eastern and southern Europe, while a much better class of immigrant came from Britain, Scandinavia, Germany and Austria. Over and above their value as "hands," the foreign-born population, drawn from a great diversity of environments, has an importance (often underestimated), by reason of the diversities of skill, knowledge or experience which individuals possess. The Russian peasant from the Ukraine, the Italian from Lombardy, are familiar with farming under very different conditions, both of which have their analogue in the States. Similarly the timber, paper and electro-chemical industries owe much to immigrant Scandinavians, the development of lithography, dyes and glass-works to Germans and Czechs, and such examples might be multiplied.

Over  $24\frac{1}{2}$  millions (23 per cent.) of the population of the United States live in large cities of 50,000 or more inhabitants. The number of cities with over a million inhabitants is three—Greater New York,  $5\frac{1}{2}$  millions (cf. Greater London,  $7\frac{1}{4}$  millions), Chicago,  $2\frac{1}{2}$  millions, Philadelphia,  $1\frac{3}{4}$  millions (cf. Glasgow, 1·1 millions) ; there are nine cities of over half a million, including Boston, St. Louis, San Francisco, Los Angeles, Detroit, Baltimore, Cleveland, Buffalo and Pittsburg, as against three such cities (Manchester, Liverpool, Birmingham) in the United Kingdom ; there are, besides, fifty-seven other cities with less than half a million, but over 100,000 inhabitants, as compared with thirty-eight such cities in the United Kingdom. The percentage of population in cities of 50,000 inhabitants or more is, however, far greater in Britain, where it is 50 per cent., than in the United States, where it is only 23 per cent., or in other words a large majority of Americans are found in the





## United States of America.

country, and in the small country towns, where the dominant interest is farming.

The total foreign trade of the United States in English sterling reached £2,331 millions in 1919, that is to say, a *per capita* trade of nearly £22, as compared to £848 millions (£8½ *per capita*) before the War. The 1919 figures for the United Kingdom show a total trade of £2,594 millions or £51 *per capita*, as compared to £1,403 millions, or £31 *per capita* before the War. This is equivalent to an increase of 172 per cent. in the States as against 70 per cent. in Britain, even when the depreciation of the pound in terms of the dollar is left out of consideration. American imports in 1919 made up only one-third of the total trade, since the country is self-contained as regards all but a few classes of food-stuffs and raw materials. This fact of the comparative lack of return freights has an important bearing upon the future success of the large merchant marine which America has acquired as a result of her shipbuilding activities during the War. As emphasising the importance of the American farmer it may be noticed that agricultural products form nearly half of the total export trade.

**Position and Climate.**—The United States has incomparable natural advantages in that it stretches across the whole breadth of a continent, thus commanding two oceans, and enjoying the products of both east and west marginal types of climate : it opens to the great Gulf of Mexico in the south, thus receiving tropical warmth and moisture without the disadvantages of a tropical latitude : it lies wholly within the temperate and warm temperate belts, thus having neither frozen wastes such as those of Canada nor tropical territory such as presents so great a problem to Australia.

The eastern United States bears some resemblance to northern and central China, having a plentiful rainfall, and as regards the northern section a brief but severe winter followed by a hot summer, but, as regards the southern section, a mild or warm winter, followed by a very hot summer. On the whole, however, the presence of the Gulf of Mexico and of the Great Lakes as additional sources of atmospheric humidity gives to the eastern States a rainfall that is less markedly seasonal than that of China, and extends farther into the interior. The total rainfall diminishes with increasing distance from the sea-board, and at the same time becomes more definitely confined to the summer months. At about 100° W. the annual average falls below 20 in., and this at present sets the limit to close human settlement. Beyond this meridian is the semi-arid belt, including the high plains, and extending to include the greater part of the mountain belt, since this is cut off by the high Coastal Ranges from the influence of the Pacific winds. The narrow belt immediately along the Pacific Coast is for the most part abundantly watered by the westerly winds, but the rainfall diminishes from north to south, and at the same time becomes more and more definitely confined to the winter months, so that whereas Portland (Oregon) has a heavy rainfall nearly all the year, San Francisco has a moderate rainfall confined to late autumn, winter and early spring, while Los Angeles has a scanty rainfall in winter only. Throughout the Pacific Coast belt, temperatures are very uniform and free from extremes throughout the year, while there is much bright, hot sunshine in the dry summers. The interior plains suffer from the greatest temperature extremes, the winters being very severe in the north, while the summer heat is most excessive in the south-west, e.g. in Texas, New Mexico and Arizona. Heavy snow occurs only in the north-east and

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on the Rockies, the fall on the northern plains being comparatively slight, as the air is dry. The Great Lakes are ice-bound from November to April.

**General Physical Conditions.**—The main physical units comprised within the United States are three in number. The great mountain belt of the west is the first. It includes two distinct chains parallel to the coast between which lie the head of Puget Sound, the fertile Willamette Valley, and the larger and still more important Californian Valley. The coast is naturally smooth and unbroken, and the three gaps in its 1,500 miles are consequently important. They are the outlet of Puget Sound, south of Vancouver Island, the estuary of the Columbia River (of which the Willamette is a tributary), and the mouth of the joint Sacramento and San Joaquin rivers (the famous San Francisco harbour) which drain the Californian valley. Beyond these



FIG. 132.—UNITED STATES: WATERWAYS AND MINERALS.

parallel coastal chains lies the mountain belt proper, a series of plateaus and basins, large and small, of varying elevations, separated by subsidiary chains, and stretching to the Rocky Mountains, which form the eastern limit of the belt. Over the northern portion of this elevated region the Snake River follows a winding course until it joins the Columbia, passing through a lava plateau of great fertility. The southern portion is drained by the Colorado River, which crosses the Sage Plains, and the Painted Desert, passes through the famous Cañon, and finally enters the Gulf of California in Mexican territory. Between these two drainage areas is the Great Basin, where the rivers terminate in saline lakes of which Great Salt Lake in Utah is the chief. The most striking resources of the States of this mountain belt are the deposits of base and precious metals, the great grazing lands, and the mountain forests.



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Sloping away from the foothills of the Rockies towards the Mississippi valley are the Great Plains (the second unit), drained by the Missouri, Platte, Arkansas and Red Rivers, all tributary to the Mississippi, which flows from a point barely 100 miles from the Canadian frontier to the Gulf of Mexico, and is navigable almost throughout its length. North-eastward of the main valley the plains rise gradually, and form the high shores of the Great Lakes, the premier inland waterway of the world. Eastwards (drained by the Ohio and Tennessee rivers) they rise to the edge of the Appalachian system, the third unit to be noticed. The great central Plains are built mainly of sedimentary rocks, smoothly outspread, so that each formation covers a wide area. Among these formations are carboniferous rocks, and hence there are coalfields of vast extent, while beneath certain beds are great stores of mineral oil and here and there reservoirs of natural gas. The land immediately around the shores of Lakes Superior and Huron differs from the rest of the Plains; it is part of the great wedge of extreme ancient rocks that forms the core of Canada, and has exceedingly valuable deposits of iron and copper ore.

The Appalachian System (the third unit) is a belt of relatively old and hard rocks, much crumpled and worn, which stretches from the north-east frontier to the Gulf Plains, and presents a varied surface of ridge and valley and low undulating plateau. The debris worn from this secondary mountain belt has been deposited along the Atlantic margin, but whereas in the south these sediments form a broad and sometimes swampy coastal plain, in the north the sea has encroached over them, so that they are transformed into fishing banks, while the valleys are also drowned, and therefore form a series of safe and valuable harbours (Hudson Valley, Delaware Bay, Chesapeake River). The Appalachian belt, because of its ridge and valley character, is more difficult to cross than its height would suggest, hence the extraordinary value, as an entry into the interior plains, of the Hudson River, which with its tributary the Mohawk cuts a gap, with easy gradients throughout, right across the mountains. At the mouth of this gap stands New York. To the north of the Hudson (in the New England States) the action of ice during the Glacial Period has produced a very irregular surface, and consequently there is an unusual abundance of water-power, which is of value in this industrial centre. Along the margins, and especially the inner margin of the Appalachian belt, there are coal-measures, besides valuable beds of iron ore and reservoirs of oil.

Nearly the whole of the eastern United States as far as the 95th meridian was, owing to the abundant rainfall, originally forested, and large and valuable forest reserves still remain. The trees are usually hardwoods (oak, walnut, hickory, elm and southern pine), but softwoods (conifers) are more abundant round the Great Lakes, in the mountains of New England, on the summits of the Appalachian ridges, and on the sandy soils (pine barrens) of the Atlantic coast plain. In the area immediately north of the Ohio and Lower Missouri valleys (Indiana, Illinois, Iowa), possibly owing to the fine loose soil, woods are less abundant, and here occur the rich prairie lands, vast stretches of natural meadow, which proved so easy to bring under the plough. Further west, the increasing lack of rainfall gives grasses the advantage over trees, and most of the country is open prairie, the grasses becoming coarser and less luxuriant on the semi-arid high plains immediately under the lee of the Rockies. The western mountains are clothed with coniferous



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forests and mountain pastures, the ranges facing the Pacific having enormous forests of conifers, including the giant Big Trees (sequoia) of California, and the Douglas Pine. Prairie, sage brush, coarse pasture, or cactus desert occur in the inter-mont basins, according to the degree of aridity of soil and atmosphere.

**Human and Economic Conditions.**—The prosperity of the United States is based upon the farming community, since besides providing nearly one-half of the exports (essential food-stuffs and raw materials which Europe must buy at any price), they provide an enormous home market for American manufactured goods. The number of farms is  $6\frac{1}{2}$  millions, the majority being from 50 to 500 acres; and over 4 million are cultivated by their owners. The estimated gross value of crops and animal products in 1919 was nearly £5,000 millions sterling, of which the bulk represents supply crops, and products marketed within the States. Such, for example, are the *hay* crop, valued at £400 millions, and the *beet sugar*, grown principally in Michigan, Ohio, and New York State to the south of the Great Lakes, and also under irrigation in the arid mountain States, e.g. Utah and Colorado. The output averages 680,000 tons, or over one-quarter the maximum pre-war output of Germany. The newly settled lands to which titles were acquired in 1918–19 totalled  $8\frac{1}{2}$  million acres, i.e. an area five times the size of Devonshire was taken up and cultivated.

**Wheat** is the principal money crop in many States, but as it is injured by too great heat and moisture, it is unimportant in the south and east. The most productive belt is that where there is a light early summer rainfall between 20 in. and 30 in., and a hot sunny autumn. These conditions are found between meridians  $95^{\circ}$  and  $100^{\circ}$  W., and thus Eastern Texas, Oklahoma, Kansas, Nebraska, South and North Dakota and Western Minnesota take the lead. Illinois, Iowa and Missouri, just to the east of this belt, are also important. Most of the wheat is autumn sown, but in the north, owing to frost, it is spring sown. Another important wheat area is the semi-arid interior of the north-western States, Washington and Oregon, where there is a rich volcanic soil. The California Valley, with its "Mediterranean" climate (summer drought), is also admirably suited to winter wheat, although other crops have recently tended to displace cereals. The average yield of wheat in the States is low (15 bushels an acre) when compared with that of European countries (United Kingdom 35 bushels an acre), owing to extensive rather than intensive methods of farming being adopted on the western prairies. The great flour-milling centres are just to the east of the wheat belt, e.g. Minneapolis on the Mississippi, where power is derived from the Falls of St. Anthony. Breakfast-foods are manufactured at many of the Middle Western towns, and the bran is fed to stock. The wheat and flour of the Dakotas and neighbouring States move westwards by the Great Lakes through the ports of Duluth and Milwaukee, or by rail via Chicago, and leave the country by New York, Boston, Baltimore and the lesser north-eastern ports. From Kansas the grain goes down the Mississippi, or by rail to New Orleans and Galveston. The Puget Sound ports and Portland handle the crop of the north-west, and San Francisco that of California. In 1919 the United States produced nearly 40 per cent. of the world's wheat supply, and sent to the United Kingdom as much as did Canada and Australia combined. The average crop is 800 million bushels.

**Maize** (corn) is grown on a far greater acreage than wheat, but is not

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exported to any great extent, being fed to stock, principally lard hogs and beef-cattle. It is also more widely used for human food in the States than in Western Europe, especially in the south. The maize belt lies to the south and east of the wheat belt, since a hotter and wetter summer is demanded. Thus the middle Mississippi Basin is the great corn centre, including the States of Iowa, Illinois, Indiana, Missouri, and Eastern Kansas and Nebraska. The great markets are consequently St. Louis, Kansas City, Omaha and Chicago, which are also meat-packing centres. The cold nights exclude maize from the irrigated areas in the arid regions. The average crop is 2,800 million bushels.

**Oats** are extensively grown both in the wheat and maize belts, but mainly as a supply crop. They also supply raw material for the large manufacture of breakfast-foods. To the south of the maize belt (although there is some overlapping) comes the **cotton** belt, extending round the Gulf Plain from Eastern Texas, with its rich black prairie soil, through Arkansas and Mississippi (with deep alluvial "bottoms"), Alabama (with a very fertile limestone belt), Georgia and the Carolinas. The low sandy islands fringing Georgia and South Carolina grow "sea-island" (long staple) cotton, which is also obtained on the adjacent mainland. Cotton is usually associated with cheap negro labour, but very successful and profitable crops have recently been raised largely by white labour on the irrigated lands of the arid west, notably in the Salt River Valley, Arizona, the variety being the long-staple American-Egyptian (Pima) cotton, spinning very fine counts (110,000 bales in 1920). The United States produces 60 per cent. of the world's cotton supply, and if the Indian and Chinese crops, marketed and manufactured mainly in the East, are deducted, it will be found that Western Europe is dependent on the States for 85 per cent. of this essential raw material. It is a fact of importance that cotton manufacture is increasing in the States, with a consequent steady increase in the percentage retained for home consumption. This has averaged 50 per cent. during recent years, and total consumption for 1919 was 50 per cent. higher than that of 1910, whereas the 1919 crop was only 10 per cent. higher than that of 1910. The same period has seen America making increasing purchases of raw cotton in foreign markets, especially of long-staple varieties, since there is an increase in the spinning and weaving of the finer counts. The **cotton-seed** is a valuable by-product, yielding edible oil and cattle-food to the value of over £80 millions. Large sums of money are spent in fighting the pink boll-worm pest, which reappeared in Texas in 1920 after apparent extermination, and constitutes a serious menace to, and tax upon the cotton industry. The average crop is nearly 12 million bales.

Somewhat overlapping the chief maize belt northwards, and the cotton belt southwards, come the leading **tobacco** regions of America, in Kentucky, Virginia, the Carolinas and Tennessee. Of the total American crop of 1,400 million lb., Kentucky yielded nearly one-third and North Carolina one-quarter, and the greatest market is at Louisville, Kentucky, while the leading port of shipment is Richmond, Virginia. Tobacco is also grown in many States to the north and south of this belt, e.g. the famous "perique" in Louisiana, near the mouth of the Mississippi. The valuable Sumatran leaf (for cigar wrappers) is grown under artificial shade (thin cotton sheets) in the Connecticut valley, and both Sumatran and Cuban leaf by the same means in Florida. The States produces 40 per cent. of the world's supply,



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and holds a practical monopoly in the export of varieties suitable for the cheaper smoking mixtures and cigarettes.

A valuable crop of very local distribution is **rice**, requiring prolonged heat and moisture. Formerly grown chiefly in the swamps of South Carolina and Georgia, it is now very important on the plains of Western Louisiana and Eastern Texas, where irrigation is easy, and on the irrigated lands of California. Farm machinery, instead of expensive hand-labour, as in the Orient, is employed, and the 1920 crop was  $53\frac{3}{4}$  million bushels, as against  $25\frac{3}{4}$  millions in 1913. This is more than sufficient to supply the home market, and there is some export from New Orleans.

**Cane-sugar** is grown on the swampy flood plain of the Mississippi in Louisiana, but although the summers are long and hot, the occurrence of frost in winter renders yearly planting necessary, and owing to the competition of Hawaiian and West Indian sugar, the industry is declining, the average crop having fallen from 300,000 tons to 200,000 tons. The Americans, with their predilection for "candy," have a very high *per capita* sugar consumption (80 lb. a year), which is likely to become still higher as a result of liquor prohibition. Hence in spite of the beet and cane production in the country, some 3 million tons must be made up by imports from abroad.

An industry which has made great progress during the last decade, especially as regards organisation, and the grading and marketing of the product, is the **fruit** industry. The import was in 1913 in excess of the export, but now the reverse is the case, and the quantities of fruit canned and dried have more than doubled since 1910. California, with its "Mediterranean" climate, produces the greatest variety of fruits—grapes, peaches, apricots, plums, figs, besides olives, walnuts and almonds. The canned fruits have long been known on the European market, while the war-time scarcity allowed Californian raisins, dried peaches, apricots, pears and prunes to compete in Europe with those of the Mediterranean. Citrus fruits, especially oranges and lemons, are also largely produced, the more southern and therefore hotter and drier parts of the State being most suitable. Water is supplied by irrigation. The **wine** industry which has hitherto flourished will be killed by prohibition, since the foreign market for non-European wines is always restricted.

A second fruit area, growing especially oranges and pineapples, is Florida, with its subtropical climate. The orange groves are liable to be damaged by frost, as cold winds sweep down the open plains from the north. Both fruit and vegetables are largely grown in such areas as allow of rapid marketing in the great industrial towns, e.g. apples on the south shore of Lake Ontario, tomatoes and apples in Delaware. The great apple district of the north-west (Washington and Oregon) is, however, remote from such markets, and hence fruit of high quality is grown for sale in Europe, the export being through Portland (Oregon).

The acreage under **ground-nuts** (peanuts) and **soya beans** was very greatly increased during the War, owing to their high content of edible oil. The ground-nut can flourish in poor sandy soils (e.g. on the Atlantic coast plain) and in semi-arid regions (e.g. Texas and California), and serves also as hog-feed. The soya bean finds in the north and in the prairie regions a climate similar to that of North China and Manchuria, where it is so abundant. These crops are of peculiar value, in that, like all legumes, they add to the nitrogen content of the soil.



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The *animal* industries of the States are of great importance both because of the enormous acreage of natural pasture on the high Western Plains and in the mountain zone, where cattle are raised, and sheep are grazed, and because of the abundance of food-stuffs, including bran, linseed, maize and cotton cake, in the agricultural belts further east, to which many animals are moved to be fattened for the stock-yards. The maximum **pig** belt practically coincides with the maize belt, the products being pork and lard, packed at Chicago and elsewhere. Pigs are, however, raised for bacon in many areas, and in California they are grazed in the orchards producing the famous "peach-fed" hams. The total number of swine is about 70 millions, a proportion of about two pigs to every three persons, which is higher than anywhere else in the world.

The arid and relatively cool pastures of the Northern Mountain States, and the slopes of the Rockies, are the best suited to **sheep**, and these animals are most important in Montana, Wyoming and Idaho, while they are very numerous also in those parts of Texas and New Mexico that are too dry for cattle. The estimated number in 1921 is 45 millions, representing a decrease of 16 millions on the figure at the beginning of the century. Meanwhile the woollen manufacturing industry has rapidly increased, so that Americans are appearing as large buyers in the world's wool markets. The improvement of the breed, however, has had a marked effect, the wool clip (300 million lb.) from the diminished flocks being nearly equal to that of 1901. Australia had 85 million sheep (17 *per capita*) and a clip of 574 million lb. in 1917.

**Cattle** of all kinds number 66 millions. Beef cattle are most numerous in the maize belt, while milch cows (total 23 million) assume the greatest importance in Wisconsin, Minnesota, Pennsylvania and New York State, the determining factors being the cooler and moister climate, resulting in rich pastures, and the proximity of the great industrial centres. The *relative* importance of cattle is greatest on the great ranches of the dry western plains, where agriculture is impossible, while recently they have come to play a leading part in the economy of the irrigation settlements, e.g., the Salt River and Yuma in Arizona, the Truckee-Carson in Nevada, the Shoshone in Wyoming. Here **alfalfa** (lucerne) is the chief crop grown, for it can be cut from three to six times a year, and is excellent for fattening cattle, hence in each of these three States there are about seven times as many cattle as persons.

At present the American cattle produce a large surplus of meat and meat products for export, besides cheese and condensed milk. Two significant facts, however, call for notice. Whereas at the beginning of the twentieth century the ratio of cattle to population was as 10 to 11, now it is only as 10 to 16. Moreover America is an increasing buyer of foreign meat and dairy products, the import reaching £3 millions in 1913 and £12 millions in 1919, a rise which represents more than a mere inflation of prices. Hence the United States must be looked upon as a diminishing source of supply of animal products. In spite, too, of the large numbers of live stock, the supply of **hides** and **skins** is far below the consumption of the leather industry, and these, especially goat-skins, are imported from all parts of the world.

In connection with the development of agriculture in America, the work of the State Department of Agriculture, one of the greatest scientific institutions in the world, is very important, the results of the latest experiments and research (e.g. in plant and stock breeding and the fighting of pests)

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being freely within the reach of every farmer. There are, besides, Agricultural Colleges in every State, where instruction is given practically free. The Federal Government also undertakes irrigation projects on a large scale, whereby millions of acres have been added and will be added to the productive area of the arid and semi-arid States.

The *fisheries* of the States are valuable mainly as a source of food supply at home, the annual catch being worth over £10 millions. The fish canneries also give occupation to a large number of people, and the products are worth a further £10-12 millions. A part of this output is exported. Of special note are the cod, herring and mackerel fisheries of Maine and New England (near the Newfoundland Banks), the oyster fisheries in the shallow bays between Cape Cod and Cape Hatteras, the herrings of the Atlantic Coast, and the salmon of Washington and Oregon.

The *lumbering* industry of the States is on a very large scale, the annual output being 26 thousand million cubic feet of wood, valued at £275 millions. The softwood forests (producing chiefly white pine) of the Great Lakes and New England, originally the most productive, have declined in output, and the greatest production now is of yellow pine from the southern (evergreen) forests, centring in Louisiana, Mississippi and Southern Arkansas. The second place is held by the Douglas fir, which is the most important tree of the vast forests of the Coast Ranges and Cascade Mountains in Washington and Oregon. The white pine of the north-east has third place, and the hardwoods (notably oak) of Kentucky, Tennessee, Northern Arkansas and Missouri (with Memphis as the great market) rank fourth. The National Forests comprise one-fifth of the standing timber of the United States, but they are principally on the Rocky Mountains and other ranges of the West, and have scarcely yet been drawn upon. It is significant that timber is being cut at four times the rate at which it is replaced by new growth and of the original standing timber of the U.S.A. only 42 per cent remains.

In output of *minerals* the United States exceeds any country in the world, the only notable deficiencies being in respect of tin and nickel. The **coal** resources are greater than those of the whole of Europe, and the output in 1918 (a record year) was 604 million tons, or nearly 6 tons per head of population. That was  $2\frac{3}{4}$  times the output of the United Kingdom for the same year, but in 1913, the last year undisturbed by war conditions, the British output was 287 million tons, working out also at about 6 tons *per capita*. The supply of **anthracite** (80 million tons annually) is obtained from one small field running south-westwards from Scranton, in Eastern Pennsylvania, and hence within easy reach of Philadelphia, whence it is shipped to various points on the eastern seaboard. The Appalachian bituminous coalfield stretches almost without a break along the inner margin of the mountains, from Pennsylvania to Alabama. Pittsburg stands where the Allegheny and Monongahela Rivers converge to form the Ohio, and these waterways are important coal carriers, while a canal system connects the Pennsylvania and West Virginia sections of the field with the Great Lakes. In Kentucky the difficult topography renders the coal in many places almost inaccessible, and the next section of importance is near Birmingham (Alabama), whence there is water-carriage to Mobile on the Gulf.

The second large bituminous coalfield (of slightly inferior quality) underlies the prairies of Indiana and Illinois, and hence is very conveniently



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placed for Chicago, St. Louis, the Mississippi Valley and the Western Lakes. The fields of the western plains and the Rocky Mountains are of decidedly inferior quality, and mined only for local use. The Pacific Coast, too, is badly placed as regards coal, although there is some raised in Washington. The United States exports of coal are small, representing (apart from bunkering coal) less than 7 per cent. of the quantity raised, the bulk going across the Lakes to Central Canada, for which it is the nearest supply.

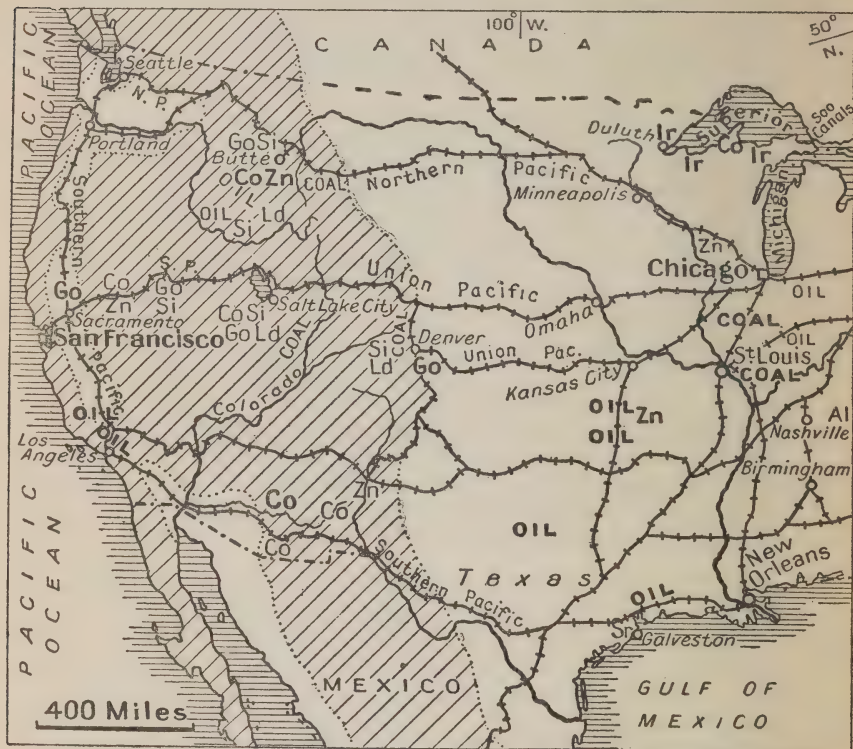


FIG. 133.—UNITED STATES: MINERALS.

In pre-war years the United States export of coal was only one-fifth that of Great Britain, whereas in 1920 the British export was only three-fourths the American. This year was, however, undoubtedly abnormal, and a proportion of the lost markets must inevitably revert to Britain.

Second only to coal in importance, are the **petroleum** fields of the United States, the country again leading as regards the world's supply. The centre of greatest production is constantly changing, as new wells are bored, and the flow from others ceases. It has shifted from a belt running through Pennsylvania and West Virginia, to a belt running through Ohio, Indiana and Illinois, thence to Texas and California, and more recently to Kansas and Oklahoma. At present California and Oklahoma produce nearly 60 per cent. of the total of 440 million barrels (1920), while much smaller quantities



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come from the other States named. The oil is piped to tidewater on the east, Gulf, and west coasts and to Cleveland on Lake Erie. It is estimated that supplies will be exhausted in ten years, in view of the large proportion of the new merchant marine designed to use oil fuel, which will consume 60 million barrels. Some 44 million barrels are imported in crude condition from the famous Tampico field of Mexico, and about 3 million barrels from Trinidad and Peru. The export in 1919 was 65 million barrels, going in greater or less quantity into almost every country in the world and serving as a useful means of giving America a footing in foreign trade.

The States has an exceedingly strong position as regards the world's **copper** supply, producing for the last twenty years more than half the total, and in 1918 as much as 60 per cent. The ores are widely distributed through the Rocky Mountain belt, the greatest output being in Arizona, followed by Montana, while New Mexico and Nevada are also important. Ranking third in output are the mines favourably placed on the southern shore of Lake Superior, in the State of Michigan. The total copper produced in 1918 was 850,000 tons, but diminished nearly 30 per cent. in 1920.

**Zinc** stands next to copper as regards value, the greatest output being from Missouri and the neighbouring areas of Kansas and Oklahoma (Joplin District), but Montana is almost equally important, and there is considerable production in New Mexico and Nevada, as also in Wisconsin. About 450,000 tons are annually produced.

**Silver-lead** ores are also obtained from a number of the mountain States, including Montana, Nevada, Utah, Idaho and Colorado. The United States has over 40 per cent. of the world's lead, but great developments are looked for in Burma. As regards **gold** output, California and Colorado take the lead, followed by Nevada, Montana and Utah, the average for 1917 and 1918 being  $3\frac{1}{2}$  million oz. Thus mining takes on great importance in the mountain belt, and there is much smelting and refining at such centres as Butte and Denver.

During the last few years the United States has produced the bulk of the world's **sulphur** (over 1 million tons), mainly from Texas and Louisiana, and nearly half of the world's **aluminium**, the southern margins of the Appalachians being rich in bauxite, as is also Saline County, Arkansas. The works are at Knoxville, Maryville and Cleveland. In Florida there are large deposits of **phosphate** rock, which is readily shipped from Jacksonville.

The resources of the country as regards **iron ore** are ample, the output of pig iron being limited only by the capacity of the blast furnaces. In 1918, 86 per cent. of the total of 70 million tons of ore was obtained from the favourably situated hematite deposits of Minnesota, Wisconsin and Michigan, lying just to the west and to the south of Lake Superior, and hence chiefly shipped via Duluth, Ashland or Marquette through the "Soo" Canals to the great smelting centres, such as Chicago, Cleveland, Buffalo and Pittsburg. Iron ores also lie along the eastern margin of the Appalachian coalfield, reaching their most favourable development round Birmingham, Alabama, where they are consequently smelted. They are self-fluxing.

Among the *manufactures* of the United States, the **iron and steel** industry takes first rank, both because of its great and varied development, and because it is in respect of this industry that British supremacy in foreign markets has been most seriously threatened or undermined. In 1913 Germany exported  $5\frac{1}{2}$  million tons of iron and steel manufactures, as compared to 5 million

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tons from the United Kingdom, and  $2\frac{3}{4}$  millions from the United States. In 1919 the United States exports had risen to  $4\frac{1}{2}$  millions, those of the United Kingdom had fallen to  $2\frac{1}{4}$  millions, and those of Germany were negligible. Obviously, however, there is an enormous unsatisfied demand, and prompt delivery as well as price will for some time influence the placing of contracts. The United States has for long held the first place in the production of pig-iron, the positions in 1913 being France, 5 million tons; United Kingdom, 10 million; Germany, 20 million; United States, 30 million. During the war years, the American average was about 33 million (maximum  $39\frac{1}{2}$  million), that of Britain about 9 million tons. The States exports comparatively little pig-iron, the figure for 1919 being less than that for Britain, which was barely one-third of normal. As regards steel, the United States touched a maximum of 45 million tons in 1917, and the United Kingdom of 10 million tons in the same year. The American exports of structural iron and steel were before the War slightly greater than the British, and have increased to over 1 million tons: exports of plates and sheets were also normally twice those of Britain, and have increased to close on 1 million tons. As regards pipes and tubes, rails and railway material, the States has an increased export, which still falls below the normal pre-war figure for Britain, while as regards galvanised sheets and tin plates, the American export is small, and in fact less than the present abnormally low British export in both these classes. The 1919 figures for America showed a general decrease upon those of 1918, partly due to the relaxation of effort following the Armistice, and partly due to steel and coal strikes. New equipment completed in 1919, however, provides for an increased annual capacity of  $8\frac{1}{2}$  million tons of steel, bringing the total up to a potential 54 millions. Although the formation of Steel Export Corporations under the Webb Act suggests that an expansion of export trade is looked for, yet with a rapidly expanding population, and a steady *per capita* increase in the use of steel, much of the increased output will naturally be absorbed by the home market. Among the great centres of the iron and steel industry, Pittsburg, Chicago, Cleveland, Buffalo, Gary (Indiana) and Birmingham (Alabama) may be mentioned. The 1921 output of pig iron was only half the normal figure, that of Great Britain only one-third.

Manufactures of iron and steel tend to follow their market, and since for the States the home market is of outstanding importance, agricultural machinery tends to be centred in the Middle West, at Chicago, Milwaukee and elsewhere; textile machinery is most in demand in New England, where Worcester (Mass.) takes the lead. The latter town has also a large machine-tool industry, as have Philadelphia, Cleveland and Cincinnati. Milwaukee, Pittsburg, Philadelphia, New York and Schenectady make engines and electrical machinery; Philadelphia takes the lead in locomotives; Chicago, Pittsburg, St. Louis and Philadelphia have great railway workshops along the Delaware River there are *shipbuilding* yards from Philadelphia to Wilmington, while there are many yards on New York Harbour, and Newport News on the Chesapeake waters is very important; ships are also built at the leading Lake and Pacific ports, and on the shores of New England.

The shipbuilding industry of America is one that showed phenomenal growth during the War, and although, as in Japan, "uneconomic" yards, and wooden-shipbuilding yards, have closed down, the industry will retain a world importance which it did not formerly possess. During the year



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1919-20 there were built and documented 965 steam vessels of over 3 million gross tons, as against 104 of 243,000 tons in 1912-13, and the tonnage of vessels engaged in foreign trade was over six times that of the pre-war period.

The *automobile* industry of the States is the greatest in the world, since the number of people who can afford cars is so great, and the motor-van and motor-truck are in more general use than elsewhere. American cars also dominate the foreign market throughout the world, and in 1919 this export reached nearly £40 millions. Detroit is the leading centre.

The presence of inexhaustible supplies of water-power, at Niagara, in New England, and along the coast ranges of the Pacific, to mention but the most striking examples, has given great importance to *electrical* industries, and the output of current has been roughly estimated at 30,000 million kilowatt hours. Not only is electricity employed for manufacturing and for transport, but its domestic use for purposes other than lighting is more common in the States than elsewhere, hence there is a large market for electrical appliances as well as for machinery. In the absence of German competition the foreign market for these classes of goods widened, and the exports rose from £4 millions in 1914-15 to £16 millions in 1918-19, while large orders remained unfilled.

The *cotton* manufacturing industry takes the lead in the textile group, and the fact that, whereas in 1913 the imports of manufactured cottons exceeded the exports by £2½ millions, in 1920 the exports exceeded the imports by £55 millions, is an indication of the rapid development which has taken place. Approximately 3 million spindles have been added, bringing up the total to 38 millions, while the number of looms has increased by 50,000, bringing up the total to 728,000. The figures for the United Kingdom are 61 million spindles, and about 800,000 looms, the much higher ratio of spindles to looms being due to the fact that Britain is a large exporter of yarn (about 200 million lb.), of which the United States imports a certain quantity. The American cotton industry is most important in New England, where it has long been established, and where water-power was a factor in starting many of the towns, although actually more power is now developed by steam than by electricity. Fall River, New Bedford, Lowell and Lawrence, all in Massachusetts, are among the leading towns, and there is also a large centre at Philadelphia. Of more recent growth, and less important than the New England industry, because of the coarser fabrics produced, is the Southern cotton manufacturing region of Alabama, Georgia and the Carolinas. Here the raw material is locally produced, coal is mined, and electrical power can be developed along the "fall line" where the river-beds drop to a lower level on leaving the hard Appalachian rocks for the softer outcrops of the coast plain. Relatively cheap white labour is obtained from the somewhat unproductive mountain belt near by. American cottons are marketed largely in Latin America, and to some extent in China; latterly they have entered Canada more freely, and have replaced German goods in many tropical markets.

The *woollen* industry, like the cotton industry, has made a rapid advance, and as has already been mentioned, the States has recently made very greatly increased purchases of foreign wool. Mills are very widely scattered over the industrial north-east, but Philadelphia is the leading centre, and there is a large output from the New England States. Although the finest



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products of English and French looms are in demand, the local mills are now able to supply tweeds, worsteds and dress materials of the highest quality. Knit goods, especially underwear, have a greater vogue in the States than in Europe.

The *silk* industry employs nearly as many looms as do woollens and worsteds together, and raw material worth over £70 millions is imported, mainly from Japan. There is also a very large manufacture of artificial silk, and in spite of the greatly increased *per capita* demand within the country for silk goods, an export trade worth £4-6 millions, going mainly to Canada and Latin America, but to some extent also to Australasia, British South Africa and Norway, has developed.

The *linen* industry of the States is negligible, except as regards the large manufacture of collars and cuffs, centred at Troy, New York State. Hence Irish linen is among the leading articles imported from Britain. The coarser fibres, jute, hemp and sisal, are imported to the value of £20 millions (1918-19), for manufacturing purposes, but the import of bags, hessians, mats and other goods of this class reaches almost as high a figure.

The ready-made clothing industry is located in New York, Chicago, and other great cities, and is of domestic importance only, although the value of the output is to be estimated in hundreds of millions sterling.

The *leather* industry plays an important part, both in domestic and foreign trade, since the annual consumption of boots and shoes is estimated at well over 300 millions, practically all of American make, while some £50 millions is spent on the import of foreign hides and skins, and approximately £80 millions is received for glazed kid, calf-skins, sole leather, boots and shoes and other leather articles sold abroad. British India is drawn upon very largely for goat-skins. The forests of oak and hemlock, supplying tanning bark, and the patent chrome process which is the basis of the great leather industry of Philadelphia, are factors determining the premier position which the United States holds as regards this manufacture.

For raw material for the enormous *rubber* industry, foreign sources must be drawn upon entirely, and whereas the States formerly purchased largely through London and Hamburg, American buyers now purchase direct in Singapore and other markets. Nearly  $\frac{1}{4}$  million tons of crude rubber was used in 1919, and the exported goods were valued at £9 millions, or over  $3\frac{1}{2}$  times the export of 1914. Half of this value was for automobile tyres alone, and there were large increases in belting, hose, packing and electrical supplies, besides rubber boots and shoes, which, however, have a far greater vogue in the States than overseas. These boots and shoes are practically all made in Massachusetts, Connecticut and Rhode Island, where also a large proportion of the leather boot and shoe factories are situated.

The advance made in the *chemical* and allied industries may be gauged from the fact that whereas in 1913-14 the excess of imports over exports in this class was £14 millions, in 1920 the exports were in excess to the value of £6 millions. The most interesting change, apart from the production of medicinal and photographic chemicals, has been the firm establishment of the manufacture of **dye-stuffs**, formerly of quite minor importance. Some £100 millions of new capital has been employed in this branch of the industry, and the output has increased nine-fold. The centres include Wilmington, on the Delaware River (where are great explosive factories), Buffalo and Brooklyn, New York. Japan, Britain, Brazil, France and Italy are the chief

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purchasers of American dyes. The States are independent, when need arises, of foreign supplies of potash, this product being extracted from kelp (sea-weed) on a large scale at San Diego, California, and being abundantly present in the lakes of Nebraska. The enormous local supply of animal fats and of cotton-seed oil led to the establishment of *soap and candleworks, and vegetable-oil* refineries, and these goods are now also on the export market. The States are increasing the home supply of oil-seeds and nuts, and are now direct buyers of copra from the Pacific, soya beans from Manchuria, ground-nuts and palm oil from West Africa, and of foreign oil-seeds generally. The crushing mills are usually located in the cotton-belt, where the industry took its rise.

The combination of timber and water-power in the north of New England and of New York State, gives to these regions the leading position in the wood-pulp and *paper* industry, while the better papers and rag papers are made farther south in the textile region. So great, however, is the consumption of paper, especially of newsprint (there are 23,000 periodicals alone), that there is a very large import of paper and pulp from Canada, where also many American manufacturers are locating new mills.

**Trade Relations.**—In view of the numbers and wealth of the farming and mining communities within the States, it must always be the first task of the American manufacturer to supply this expanding home market, and the capturing or holding of foreign markets is of less importance than the magnitude of the various industries at first suggests. Moreover, the enormous excess of exports over imports, except in so far as it represents interest on foreign capital invested in the States (which has been greatly reduced), or new American investments of capital abroad, must react, through the adverse exchange, upon prices until it is automatically reduced. Hence American competition, though a factor to be reckoned with, does not constitute a menace to the manufacturing interests of Western Europe. The vast open plains of America offer ideal conditions for railway development, nor do the Rockies present any formidable barrier. The steepest gradients are met with in the Appalachians and the New England Mountains, Boston being seriously handicapped as a port for this reason. The result is the great concentration of traffic through the Hudson Valley route, where very serious congestion has occurred, for the extension of track and rolling-stock has not kept pace with the increase of freights carried. The construction of a deep-water canal (in place of the old Erie Canal) from New York to Buffalo gives potential relief to the railways to the extent of 20 million tons during the season of open water, the minimum depth being 12 ft. The tonnage passing through the canals of the upper Great Lakes is greater than that through the Suez Canal: the equipment of the Mississippi waterway has been improved, and a ship-canal between the Chesapeake and Delaware Rivers is under construction.

Philadelphia ranks second to New York as a port, and Boston third. Baltimore has one of the best harbours on the Atlantic, and will shortly have an immigrant station. New Orleans has recently become more progressive, and has greatly increased its international trade. It is the leading Southern outlet for grain and cotton, and does a large West Indian business. An industrial canal is under construction which will improve connexion with the sea. San Francisco takes the lead on the Pacific coast, but Seattle, on Puget Sound, lying more than 200 miles nearer Yokohama, is of rapidly growing importance, and Portland (Oregon), with a deep river harbour, does



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a large trade. Galveston, on the Gulf of Mexico, is a rival of New Orleans. All have first-class accommodation and equipment. Chicago, for example, on Lake Michigan, has 30 miles of docks.

The gross tonnage of United States iron and steel sea-going vessels in June, 1921, was 12·3 millions, against 1·8 millions in 1914, and represented nearly 23 per cent. of the world's total.

The classes of goods imported into the United States in 1919-20 to the value of over £50 millions were as follows :—Sugar, raw silk, raw wool, crude rubber, hides and skins, coffee, and vegetable fibres including cotton, all of which (except silk) can be supplied in bulk by Latin America (Mexico, West Indies and South America), from which countries there was an actual total import of £375 millions. Other articles of secondary, yet considerable, importance which these countries can and do supply are mineral oil, cacao, meat, cattle, tobacco, tropical fruits, winter vegetables, and cabinet woods. This region is climatically the complement of the United States, and hence the natural field in which a strong and permanent trade should be established. Since these imports in part represent the returns on very heavy capital investments in Latin America, the return trade is not so great, amounting only to £235 millions in the same year, and including food-stuffs as well as manufactured goods. Porto Rico and Hawaii also supply sugar and other tropical food-stuffs to the value of over £50 millions, and purchase United States goods to the value of £30 millions, but as they are technically territories of the United States these figures are not included under the foreign commerce of that country.

Other countries which the States draws upon for food or raw material in bulk are Japan (silk, tea), India (jute, hides and skins, tea), Malay (rubber and tin), Philippines (sugar and hemp), China (soya beans, wood oil, silk), Oceania (copra), Australasia (wool), Canada (paper, nickel), Egypt (cotton). These countries buy in return American oil, certain provisions, and also manufactures, but, broadly speaking, they rely normally to a far greater extent on Europe for manufactured goods.

Even under normal conditions the trade between the United States and Europe is one-sided, since in return for raw cotton, grain, meat products, tobacco, and mineral oil, only highly specialised manufactures, luxury articles, and specialised food-stuffs and beverages can find a market in the States. American freights, however, were formerly almost entirely carried on European bottoms, much European capital was invested in the States, money was sent away by European immigrants, and large sums of money were spent by American visitors to Europe, all factors tending to redress the disparity of merchandise. Prohibition has destroyed the trade in wines and spirits. America has now her own merchant marine, while, until Russia is restored, the demand for grain, oil and meat products must remain abnormal. Thus, whereas in 1912-13 the United States imports from Europe were valued at £178 millions (of which the United Kingdom supplied one-third, and Germany nearly one-fifth), the imports in 1918-19 were valued at £74 millions, of which Great Britain supplied over one-third and France one-sixth. On the other hand, United States exports in 1912-13 were valued at £296 millions, of which the United Kingdom took rather under one-third and Germany nearly one-fourth, while in 1918-19 the figure reached £929 millions, of which the United Kingdom took nearly half, France nearly one-fifth, and Italy one-ninth.



## Uruguay.

In the year 1920 (taking the dollar at 5s. 6d.) the total United States export was £2,224 millions, of which over half went to Europe, while the total import was £1,427 millions, of which under one-quarter came from Europe. Germany in that year sent goods to the value of £24 millions to the United States, or only 7 per cent. of the European total.

**General Information.**—The unit of currency in the United States is the dollar, of par value 49·32*d.* (approximately 4s. 1½*d.*). The gold dollar is of 25·8 grains, ·900 fine, and parity is maintained between gold and silver. Of the currency actually in circulation on December 1, 1919, over 50 per cent. was in Federal Reserve Notes and Gold Certificates issued against adequate gold reserves; 15 per cent. was in gold coin, and 7 per cent. in silver or silver certificates, besides Bank Notes and “Greenbacks.” The weights and measures are as in Britain, except that the *cental* of 100 lb. replaces the cwt., and the short ton of 2,000 lb. is, in certain trades, used instead of the long ton of 2,240 lb. The bushel is 0·9692 of the Imperial bushel. The metric system is to be made compulsory. British Banking establishments having branches at New York include: The Bank of Montreal, the Royal Bank of Canada, the Hong-Kong and Shanghai Banking Corporation, and the leading Anglo-South American Banks. The National City Bank of New York and the International Banking Corporation have branches in London, Europe, Latin America and the Far East.

Mails from London reach New York in 7–8 days. There is a British Consul-General at New York, and Consular representatives in all the leading cities. A Commercial Counsellor and a Commercial Secretary are attached to the British Embassy.

## URUGUAY

**Area and Population.**—Uruguay is one of the smaller South American Republics, having an area of only 72,000 square miles, and a population of 1½ millions. The people are, however, mainly of European descent, and the per capita foreign trade is high—about £25. The principal city and seaport, Monte Video, has nearly 370,000 inhabitants, but other cities are only small, including Paysandu and Salto, each with about 30,000 people, and Mercedes, with 23,000. Over 10 per cent. of the population is of foreign (chiefly Spanish, Italian and Brazilian) birth.

**Position and Climate.**—Uruguay has the very great advantage of being situated on the Plate estuary, which forms its southern shore. Its eastern boundary, separating it from Argentina, is the river Uruguay, navigable below Salto. To the north lies Rio Grande do Sul (Brazil), and to the east the South Atlantic Ocean. Lying between latitudes 30° and 35°—i.e. in a similar position to South Carolina and Georgia in the United States—Uruguay possesses every climatic advantage. The summers are hot, but not excessively so, the winters are warm, and the rainfall, although moderate, is well distributed through the year. Thus there is, normally, no season, either of drought or cold, to check agricultural work, or to render it necessary to house stock and feed them artificially. Occasional disastrous droughts do, however, occur, and locusts are often a scourge.

**General Physical Conditions.**—Uruguay is a rolling plain, rising to nearly 2,000 ft. above the sea in the north-east, and having a general

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slope inland, so that it is drained south-westward to the Uruguay, by a tributary river, the Rio Negro. The plains are treeless pasture land, varied towards the hillier north and by the rivers with woods of Brazilian pine, palms, and evergreen trees. Hence, as in Argentina, nature offers no barriers, whether of steep slope or tangled forest, to the rapid development of lines of communication. The short Atlantic seaboard is fringed by lagoons, but



FIG. 134.—URUGUAY.

the land overlooking the Plate estuary is higher lying, and the mount from which Monte Video takes its name rises to about 500 ft.

**Human and Economic Conditions.**—The development of Uruguay has taken place mainly in the belt in which water transport is available, that is to say in the belt along the Uruguay and Plate rivers. The staple product is horned **cattle**, which number 8 millions, and furnish material for the old-fashioned *saladeros* and for the modern meat-packing establishments which are the basis of the prosperity of Monte Video, on the Plate, and of Fray Bentos, Paysandu and Salto on the Uruguay. **Sheep**, however, are an important secondary staple, for although their numbers have shown a marked decline (from 26 to 11 millions, although estimates differ widely),

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the breed has been greatly improved by imported pedigree stock, and the *estancieros* profited by the very high price of wool until the slump of 1920.

The number of persons engaged in agriculture, and the acreage under crops, shows a steady increase, the greatest attention being paid to *wheat*, *maize*, and the *vine*, which yield staples of daily consumption by a population mainly of Spanish and Italian origin. *Tobacco* is also grown for local use, oats and linseed for fodder crops. The leading agricultural provinces are Colonia, Canelones, San José and Minas, lying along the shore of the Plate estuary. The success of several large estates devoted to dairying, notably those in the hands of the Swiss Colony in Colonia, point to a future for this industry as the labour supply improves.

The railway system (almost entirely British owned) focusses on Monte Video, whence three trunk lines run to the northern frontier, one following the bank of the Uruguay, and another linking up with the Brazilian system, and thus affording a through route to Rio de Janeiro.

**Trade Relations.**—The export trade is almost entirely of animal products—meat and meat extracts, hides, wools and fats—which normally find their market in Britain and Western Europe, either directly or via Argentina. The United Kingdom, Germany, France and Belgium were the largest purchasers prior to the War, but the figures since 1918 show the United States, Italy, and Spain taking a greatly increased share of Uruguayan produce.

The imports, which include every variety of manufactured goods, previously came in almost equal value from Great Britain and Germany, France, too, having an important share in the trade. The proportion of goods of British origin has materially decreased, although, owing to high prices, there is little change in the money value of these imports. A very large volume of trade has been captured by the United States, which now furnishes one-third of the imports.

The value of the imports into Uruguay is about half of that of the exports, the average for 1918–20 being £10½ millions and £22 millions respectively. A drop of £9 millions in exports in the year 1920 reflected the return to more normal conditions in the wool market.

Vessels drawing up to 28 ft. can lie alongside the wharves of Monte Video, which has excellent port facilities. Vessels drawing 20 ft. can reach Fray Bentos on the Uruguay River, and there is a minimum of 15 ft. at Paysandu, still farther up-stream.

**General Information.**—The language spoken in Uruguay is Spanish, and the people are Roman Catholics. The supply of electricity for any purpose is a State monopoly. The official theoretical monetary unit is the gold *peso nacional*, of which 4·7 are equal to a pound sterling. No Uruguayan gold is, however, coined, paper money, silver, and foreign gold being in actual circulation. The metric system of weights and measures is adopted, and its use is compulsory. There are four British banks at Monte Video: the London and River Plate, the London and Brazilian, the British Bank of South America, and the Anglo-South American Bank. There are also German, French, Spanish, Italian and New York banks. Mails reach Monte Video in 30 days.

There are British Vice-Consuls at Monte Video, Fray Bentos, Salto, Paysandu and Maldonado. A Commercial Secretary is attached to the British Legation.



## VANCOUVER ISLAND

See *Canada*, p. 123.

## VENEZUELA

**Area and Population.**—The Republic of Venezuela, with an area (399,000 square miles) rather more than three times that of the British Isles, has a population of only  $2\frac{1}{4}$  to  $2\frac{3}{4}$  millions, which is equal to about half that of Scotland, or, say, three times that of Liverpool. The greater part of this population is, however, concentrated in the north of the country, in a fairly narrow zone readily accessible from the coast. Over three-quarter million people live in forty-eight towns, each with more than a thousand inhabitants, of which Caracas (90,000) is the largest. The annual



FIG. 135.—VENEZUELA.

purchases of foreign goods made by Venezuelans works out at 30s. a head, while their productions for export are worth rather more than £2 a head.

**Position and Climate.**—Venezuela lies along the southern shore of the Caribbean Sea, its seaports being due south of those of New England and Nova Scotia, a fact reflected in its growing trade relations with the United States and Canada. The whole country is within  $12^{\circ}$  of the Equator, that is to say, is in the same latitude as Southern India and Ceylon. Consequently the lowlands are exceedingly hot all the year round, and the range of temperature is small. The north-east trade winds blow at all seasons, and (as in India) the summer months have drenching rains, while from October to March, when the sun has moved south, there

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is a well-marked dry season. In no part of the country is the total annual rainfall less than 40 in., and there is rarely any deficiency of water.

**Physical Conditions.**—The dominating feature of the relief is the great spur of the Andes Mountains, which enters the country from the south-west, and sweeping round, runs eastwards parallel to the north coast, until it terminates in Trinidad, which is separated only by a very narrow strait from the mainland. A second spur runs northwards, forming the western boundary of the State, while in the angle between these two mountain chains lies the great depression holding the Gulf and Lake of Maracaibo, a large and important sheet of water opening to the Caribbean Sea. At present a dangerous bar prevents the access of large vessels from the Gulf to the Lake, but it is proposed to cut a canal at this point. The fact that from the eastern and western shores of this Gulf and Lake, and also from the north coast of Venezuela generally, the land rises rapidly to considerable elevations has several important consequences. The climate of the higher ground is a pleasant and healthy one, so that here the residential districts are found, only those persons engaged on the plantations or working at the seaports having their homes in the low-lying districts. Caracas, the capital, with a population of nearly 100,000 people, stands at an elevation of 3,000 ft. behind the seaport of La Guaira. The temperatures all the year round in Caracas are similar to those enjoyed during a fine July or August in the English Home Counties, whereas in La Guaira the climate resembles that of Colombo in Ceylon. Valencia, the second city of Venezuela, has a similar position with regard to Puerto Cabello. An obvious disadvantage of such locations is, of course, the expense of constructing railways and gently graded roads up the abrupt slopes, and the consequent heavy freight charges. But besides affording a cooler climate, these Andean spurs, with their rich virgin soil, offer ideal sites for coffee plantations. They are clothed naturally with dense forests, tropical at the base, temperate at higher altitudes, which yield cabinet and hardwoods, besides wild vanilla and rubber.

To the south of this sweep of mountain country lies the Basin of the Orinoco. This rolling plain was long ago described by Sir Walter Raleigh as having the appearance of an English park, its natural vegetation of grasses being diversified by clumps of trees. The grasslands are known as llanos, and have many points in common with the African savannahs, as found, for example, in Northern Nigeria and the Egyptian Sudan. The natural outlook of the Llanos region is westward to the Atlantic, for a great navigable waterway, formed by the channels of the Apure and Orinoco rivers, runs across it in a straight line from the Andes to the ocean. The Orinoco, however, enters the sea by an intricate network of water channels of no great depth, forming a vast delta clothed with swamp forest. This delta, like that of the Ganges, affords no natural location for a river port or ports such as those which have played such a great part in the development of the Plate region. In the rains, too, navigation of the river is difficult.

To the south-east of the Orinoco is a hilly region, rising towards the Guiana highlands, which is more richly wooded than the Llanos.

**Human and Economic Conditions.**—The coastal lowlands, and the lower slopes of the mountains, are suitable for the growth of plantation products, including *cacao*, *sugar*, *cotton*, *bananas*, *coco-nuts*



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and *coffee*, the last named at an elevation of about 1,500 ft. above sea-level. The lack of an efficient system of roads and railways has determined **coffee** as the chief money crop, for owing to its high value relatively to its bulk, it can be profitably carried on pack-mules to the nearest seaport or railhead. **Cacao** beans, with similar qualities, take the second place. In recent years, however, the Government has adopted a very progressive road policy, with the result that there is a rapidly increasing mileage suitable for transport by motor-truck. The **sugar** industry received an impetus owing to the general shortage produced by the Great War, and several new mills and refineries have been built. A beginning has been made, too, with textile manufactures: cottons for the home market are woven of home-grown material, and gunny sacks to hold the coffee, cacao, etc., are made from coarser local fibres.

The quantity and value of the coffee exported varies considerably, owing to the incidence of good and bad seasons, but the average value is about £3 millions. Venezuelan cacao is of exceptionally good quality, and the export has rapidly increased, its value being now about £1½ millions. The sugar and cotton crops are consumed locally, and the fruit industry (mainly *bananas*), in which Venezuela shares with the whole Caribbean seaboard, is as yet not fully developed.

The well-grassed llanos region has obvious possibilities as a stock-raising (*cattle*) area, and the industry has lately made some progress. Ciudad Bolivar is the chief commercial centre, standing on the great west to east waterway, but so far the service of steamers is poor. San Fernando, about 300 miles farther up stream, is in an exceptionally rich grazing district. The relatively primitive state of the ranching industry is shown by the fact that the *hides* of the animals form the chief export. Owing, however, to the gradual improvement of communications with the populous north meat finds a home market, and a small but increasing number of live cattle are sent abroad. An important advance is marked by the establishment of a meat-packing plant at Puerto Cabello. The llanos region needs an increase of population before the ranching industry can make any great strides, but both the immigration and the local growth of Venezuelan population are small. When once the country begins to be systematically developed, it will be found profitable to combine stock-raising with the growing of maize, alfalfa and other crops that can be used as fodder.

In the absence of a port on the Orinoco delta, Port of Spain in British Trinidad is the collecting and distributing centre for the llanos region. Here the cargoes, which include wild rubber (*balata*) from the forests to the south and south-east of the grasslands, are transhipped from the coasting and river vessels to ocean liners or tramps. The value of this transit trade is about £1 million. Foreign vessels are not permitted to engage in the coastwise trade or on the internal waterways of Venezuela.

The development of the railways and of motor transport has created a demand for fuel, and so has stimulated the exploitation of the local coal and oil-fields. At present the output is small and is consumed in the country, but neither mineral is as yet fully worked. The **oil**-wells to the east and west of Lake Maracaibo show great promise, and both refineries and tank reservoirs have been erected. The output was 480,000 barrels in 1920. **Asphalt** is shipped to the United States, several lakes occurring near the east coast similar to the pitch-lake in neighbouring Trinidad.



## **Cape Verde Islands.**

The output (nearly 50,000 tons) is  $\frac{2}{3}$  that of the British island. **Copper**, too, is mined and sent abroad.

There are **gold** mines in the south-eastern hill country, and although the best known of these are practically worked out, it is considered that a great increase in production is probable. The woods of this little-known region yield wild rubber, chicle (for chewing gum) and dyewoods.

*Pearls* are fished round Margarita island, the average yearly value being £300,000.

**Trade Relations.**—The coffee and cacao (for chocolate and cocoa) of Venezuela go very largely to the United States, which has an enormous consumption of both articles. France and the Netherlands are also very important customers, as was Germany before the War. Great Britain ranked below the above-mentioned countries as a consumer of Venezuelan products, but stood second only to the United States as supplying imported goods. Almost every kind of manufactured article is in demand, including besides clothing, furniture, luxury goods, hardware, glassware, such commodities as motor-cars, trams and electrical fittings for the up-to-date cities, in addition to agricultural and other machinery. The United States, Great Britain and Germany, closely followed by France, were competitors in the order named for the supply of manufactures to Venezuela before the War. Germany necessarily dropped out between 1914–19, whilst the United States, with the advantage of propinquity, drew rapidly ahead.

Vessels drawing up to 26 ft. can discharge at the wharves of La Guaira and Puerto Cabello.

**General Information.**—In pursuance of the Canadian policy of establishing commercial relations with Tropical America, the Royal Bank of Canada has opened branches at Caracas and elsewhere. The (British) Commercial Bank of South America, two United States banks, and a Dutch bank, have also opened branches in the capital city.

The language spoken in Venezuela is Spanish, and the State religion is Roman Catholic. The official monetary unit is the *bolivar*, which corresponds to the franc, of a par value 25·25 bolivars to the pound sterling. The metric system of weights and measures has been adopted.

The mails are carried by the Royal Mail Steam Packet Co., via Barbados and Trinidad or Curaçoa, and take about 14 to 16 days in transit. There are British Vice-Consuls at Caracas, Bolivar, La Guaira, Puerto Cabello and four other large towns.

## **VERDE ISLANDS, CAPE.**

**General Conditions.**—The Cape Verde Archipelago is a Portuguese possession administered by a Governor, and lying within the tropics about 300 miles from the west coast of Africa. The area of the group (ten islands) is about 1,500 square miles, and the population 150,000. The capital is Praia, on São Thiago, with 21,000 inhabitants, which is an important cable station between Europe, South America and West Africa. The chief commercial centre is, however, St. Vincent, one of the smaller and more northerly islands. This is also a cable station, and ships call in large numbers for bunker coal, and for miscellaneous supplies. These form the

**Wurttemberg.**

main items of import trade, which amounts to about £1 million, and is largely in English hands. The exports are inconsiderable. The islands lie in the trade wind belt, and like the neighbouring parts of Africa suffer from a marked deficiency of rainfall. Hence cultivation is limited to a few favoured areas, and to the valleys of such perennial streams as descend from the volcanic mountains of which the archipelago is comprised. Money, weights and measures are as in Portugal, and a Portuguese dialect is spoken, but many of the business community also understand English. An English Consul is stationed at St. Vincent.

**VICTORIA**

See **Australia**, p. 34.

**VIRGIN ISLANDS (U.S.A.)**

**Area and Population.**—The Virgin Islands, of U.S.A., situated close to her possession of Porto Rico, were bought by the American Government from Denmark in 1916 for £5 millions. They are administered by a Governor, under the Navy Department, Danish laws, taxes and customs remaining in force. The area is 132 square miles, and the population 26,000, of whom more than half live in three cities: Charlotte Amalia on St. Thomas, the most important island, Christiansted, and Frederiksted on St. Croix.<sup>1</sup>

**General Conditions.**—The products of the islands, including sugar, rum, and *bay rum*, are relatively unimportant. St. Thomas is of strategic importance. It has a fine harbour, and commands a point of entry into the Caribbean Sea, *en route* for the Panama Canal. It has a coal-ing station and large docks, and is much visited by shipping in the West Indian Seas. The United States has established in addition an oil-bunkering station, and a powerful wireless station.

**WESTERN AUSTRALIA**

See **Australia**, p. 34.

**WINDWARD ISLANDS**

See **British West Indies**, p. 119.

**WURTTEMBERG**

See **German Republic**, p. 237.

<sup>1</sup> For Map see Leeward Islands.

*Zululand.*

## **YEMEN**

See **Arabia**, p. 19.

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## **ZANZIBAR**

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## APPENDIX

## EXCHANGE RATES FOR 1920 AND 1921.

[Appreciated currencies in heavy type.]

| Place.                   | Parity.              | During<br>1920.<br>Average.       | During 1921.                         |                                      | Coin.   |
|--------------------------|----------------------|-----------------------------------|--------------------------------------|--------------------------------------|---------|
|                          |                      |                                   | Highest.                             | Lowest.                              |         |
| New York . . . . .       | 4·86 $\frac{2}{3}$   | <b>3·657</b>                      | <b>4·24</b>                          | <b>3·54</b>                          | dollar  |
| Montreal . . . . .       | 4·86 $\frac{2}{3}$   | <b>4·100</b>                      | <b>4·59</b>                          | <b>3·99</b>                          | dollar  |
| Paris . . . . .          | 25·22 $\frac{1}{2}$  | 52·68                             | 61·45                                | 45·62 $\frac{1}{2}$                  | franc   |
| Brussels . . . . .       | 25·22 $\frac{1}{2}$  | 50·19                             | 61·60                                | 45·67 $\frac{1}{2}$                  | franc   |
| Copenhagen . . . . .     | 18·15                | 23·44                             | 23·75 $\frac{1}{2}$                  | 18·80                                | krone   |
| Amsterdam . . . . .      | 12·07                | <b>10·69</b>                      | <b>11·83</b>                         | <b>11·07</b>                         | florin  |
| Belgrade . . . . .       | 25·22 $\frac{1}{2}$  | —                                 | 375                                  | 122 $\frac{1}{2}$                    | dinar   |
| Vienna . . . . .         | 24·02                | 874·74                            | 14,000                               | 1,200                                | krone   |
| Buda Pest . . . . .      | 24·02                | —                                 | 4,500                                | 750                                  | krone   |
| Warsaw . . . . .         | 20·43                | 902·11                            | 26,000                               | 2,200                                | P. mark |
| Prague . . . . .         | 24·02                | 252·92                            | 430                                  | 262 $\frac{1}{2}$                    | krone   |
| Berlin . . . . .         | 20·43                | 226·80                            | 1,275                                | 212 $\frac{1}{2}$                    | mark    |
| Stockholm . . . . .      | 18·15                | <b>17·89</b>                      | <b>17·67<math>\frac{1}{2}</math></b> | <b>16·40</b>                         | krone   |
| Christiania . . . . .    | 18·15                | 22·51                             | 31·75                                | 19·42 $\frac{1}{2}$                  | krone   |
| Bukarest . . . . .       | 25·22 $\frac{1}{2}$  | 208·19                            | 895                                  | 217 $\frac{1}{2}$                    | leu     |
| Sofia . . . . .          | 25·22 $\frac{1}{2}$  | —                                 | 825                                  | 260                                  | lev     |
| Lisbon . . . . .         | 52 $\frac{1}{2}$ d.  | 20·62                             | 8 $\frac{9}{16}$                     | 4 $\frac{9}{16}$                     | escudo  |
| Constantinople . . . . . | 110                  | —                                 | 890                                  | 490                                  | piastre |
| Alexandria . . . . .     | 97 $\frac{1}{2}$     | 97 $\frac{1}{2}$                  | 97 $\frac{13}{32}$                   | 97 $\frac{3}{8}$                     | piastre |
| Milan . . . . .          | 25·22 $\frac{1}{2}$  | 76·73                             | 109 $\frac{1}{4}$                    | 71 $\frac{3}{4}$                     | lira    |
| Madrid . . . . .         | 25·22 $\frac{1}{2}$  | <b>23·27</b>                      | 31·30                                | 26·75                                | peseta  |
| Berne . . . . .          | 25·22 $\frac{1}{2}$  | <b>21·70</b>                      | <b>24·23</b>                         | <b>20·17<math>\frac{1}{2}</math></b> | franc   |
| Athens . . . . .         | 25·22 $\frac{1}{2}$  | 34·01                             | 104·00                               | 48·25                                | drachma |
| Helsingfors . . . . .    | 25·22 $\frac{1}{2}$  | 106·21                            | 320                                  | 107                                  | F. mark |
| Bombay . . . . .         | 2/0                  | 1/11 $\frac{1}{2}$                | 1/6 $\frac{3}{32}$                   | 1/3                                  | rupee   |
| Yokohama . . . . .       | 2/0 $\frac{3}{4}$ s. | 2/8 $\frac{3}{4}$                 | 2/8 $\frac{1}{4}$                    | 2/3 $\frac{3}{16}$                   | yen     |
| Shanghai . . . . .       | —                    | 5/11 $\frac{1}{4}$                | 4/2 $\frac{5}{8}$                    | 2/11 $\frac{1}{2}$                   | tael    |
| Hong Kong . . . . .      | —                    | —                                 | 3/2 $\frac{1}{16}$                   | 2/2 $\frac{1}{16}$                   | tael    |
| Singapore . . . . .      | —                    | —                                 | 2/4 $\frac{3}{8}$                    | 2/3 $\frac{1}{2}$                    | dollar  |
| Rio de Janeiro . . . . . | 27d.                 | 16 $\frac{3}{4}$                  | 10 $\frac{3}{8}$ d.                  | 6 $\frac{3}{4}$                      | milreis |
| Buenos Aires . . . . .   | 47 $\frac{1}{2}$ d.  | <b>59<math>\frac{1}{2}</math></b> | <b>51<math>\frac{1}{2}</math></b>    | 40 $\frac{1}{16}$                    | peso    |
| Valparaiso . . . . .     | 13 $\frac{1}{4}$ d.  | <b>20·18</b>                      | <b>40·60</b>                         | <b>30·40</b>                         | peso    |
| Monte Video . . . . .    | 51d.                 | 61                                | 51                                   | 38 $\frac{1}{2}$                     | peso    |
| Lima . . . . .           | Eng. to Peru £       | 22 $\frac{3}{4}$ %                | 17 $\frac{1}{2}$ %                   | 16%                                  | £       |
| Mexico . . . . .         | 24·28d.              | <b>33</b>                         | <b>34<math>\frac{1}{2}</math></b>    | <b>28<math>\frac{1}{2}</math></b>    | dollar  |

## WHOLESALE PRICES FOR 1920 AND 1921.

The index numbers are based on the average prices (for the year 1913 taken as 100) of 60 commodities, including 22 foodstuffs and 38 raw materials. The average index number for 1920 was 328·1, the maximum figure of 352·9 being reached in April of that year. The average for 1921 was 189·5, and the average at the opening of 1922 was 162·1.

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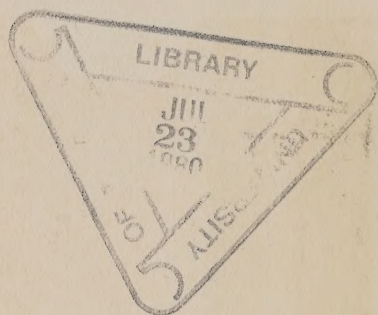
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